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Author(s): Robert R. Dykstra

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QUANTIFYING THE WILD WEST: THE PROBLEMATIC STATISTICS OF FRONTIER VIOLENCE

ROBERT R. DYKSTRA

Was frontier violence as pervasive as traditionally depicted? Historians are divided. Although FBI-type homicide rates support the high-violence school, a “small-numbers fallacy” continues to bedevil proponents. Consolidating venues offers promise, confidence intervals do not. Some scholarly consensus might help wrest the portrayal of western lethality from those with much imagination but limited grounding in history.

Some of the old time sheriffs wouldn't even carry a firearm. A lot of folks find that hard to believe, but it's a fact.

Cormac McCarthy, *No Country for Old Men*¹

IT MIGHT SURPRISE MOST AMERICAN historians to learn that one of the liveliest and longest-running methodological controversies in our field concerns the metrics of interpersonal violence in the late-nineteenth century West.

As Anne Butler has aptly remarked, “One almost cannot speak of western history without taking into account the place and power of violence in the heritage of the West.”² But how scholars are to come to terms with the phenomenon continues to be disputed. The whole thing boils down to whether the incidence of interpersonal killing (a definition that excludes Indian wars and related violence, a conceptually separate topic) was—or was not—as commonplace and large in volume as widely thought. In

ROBERT R. DYKSTRA, emeritus professor of history and public policy at the State University of New York, Albany, welcomes comments on this essay at dykstra39@charter.net.

¹ Cormac McCarthy, *No Country for Old Men* (New York, 2005), 63. These lines also appear in the recent filmed version of the novel.

² Anne M. Butler, *Gendered Justice in the American West: Women Prisoners in Men's Penitentiaries* (Urbana, 1997), 1.

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other words, did gunfights, murders, feuds, and lynchings make the American West of the post-Civil War era truly anarchic, a culture of violence writ large? If so, the numbers—the body counts—must have been horrific. But if one credits novelist McCarthy's dispirited Sheriff Ed Tom Bell, as quoted in the epigraph above, interpersonal violence must have had reasonable limits, even in late-nineteenth century Texas.

The topic is controversial at more than one level. Many western historians see it as a dispute relating to one of the most important matters over which our sub-discipline has scholarly jurisdiction. A kind of Manichean intellectual contention between "Frontier was Violent" and "Frontier was Not Especially Violent" schools, as Roger McGrath phrased it, dates back to the 1920s.³

But in the past two decades the high-violence viewpoint seems to have gained ascendancy among both scholars and laity. One aspect of this is the New Western History's continued animus toward the spirit of Frederick Jackson Turner. The father of frontier studies, says Donald Worster, expunged from his master narrative the "unsmiling aspects" of western life. Fully ostracizing Turner has required uncovering the region's lethal conflicts "not only between the races but also between classes, genders, and other groups within white society."⁴

Another important if less acrimonious factor is that most Americans have learned their western history in darkened theaters and rec rooms. Recently polled, 49 percent of some five hundred self-identified lovers of Western films, according to Yardena Rand, valued above all else the perceived accuracy and realism of what they saw on the screen.⁵

But why condemn the multitudes? Decades ago many important academics, too, believed in Hollywood's Old West. On the post-Civil War frontier, said Vernon Parrington, "All things were held cheap, and human life the cheapest of all." Harvey Wish suggested that the Hollywood conception of the "bold, wicked" western town—with its "feuding bad men," its "swift, straight-shooting" marshals, and its "vigilante hanging[s]"—was entirely accurate. In the cattle-trading centers, according to Ray

³ Roger D. McGrath, *Gunfighters, Highwaymen & Vigilantes: Violence on the Frontier* (Berkeley, 1984), 261–71. For an intelligent update see Harold J. Weiss, Jr., "Overdosing and Underestimating: A Look at a Violent and Not-So-Violent American West," *Quarterly of the National Association for Outlaw and Lawman History* 27 (April-June 2003): 54–63.

⁴ Donald Worster, "Beyond the Agrarian Myth," in *Trails: Toward a New Western History*, ed. Patricia Nelson Limerick, Clyde A. Milner II, and Charles E. Rankin (Lawrence, 1991), 16, 21.

⁵ Yardena Rand, *Wild Open Spaces: Why We Love Westerns* (Manville, RI, 2005), 40–1. "Factual" for many viewers seems to hinge on firearms portrayals. "My interest in Westerns waned in the 60s/70s—I started picking up the hardware errors," wrote one of Rand's informants. "Then there was Clint [Eastwood] in *Unforgiven*. Wow, it was like getting hit with a brick to wake you up! My favorite part was the authentic and varied guns. A Smith and Wesson Schofield? Whoever used an S&W in a Western movie before?" See Rand, *Wild Open Spaces*, 41. The writer was aged sixty-four, but virtually identical enthusiasm about the sidearm carried by a leading character was expressed to me by a recent college graduate soon after release of the movie.

Billington's best-selling textbook, "Mobs of mounted cowboys 'took over' by day, their six-shooters roaring while respectable citizens cowered behind locked doors . . . Seldom did a group of drovers leave without contributing to the population of 'boot hill' . . . for barroom brawls, drunken duels, and chance shootings were so common that no one bothered to punish the murderers."⁶

Western historians of the 1970s and 1980s finally turned down the volume. A revised edition of Billington, for example, asserted that "the 'shootout' glorified in 'western' stories and motion pictures was unheard of." But it remains subject to debate whether such noisy interpretations have been entirely excised from more recent scholarship. Richard Slotkin, for example, obscured the intellectual space between myth and reality in seeing a reified spirit of frontier violence, made in Hollywood but with a life of its own, driving U. S. policy during the Cold War and in Vietnam.⁷ Especially within the recently developed field of popular culture, which includes the serious study of Western films (and in which "facticity" is seldom privileged over narrative originality), such uses may linger more than most historians realize.⁸

Last but hardly least in the resurgence of the high-violence position is the tendency of methodological innovators of the past twenty years to identify with the frontier-was-violent school of thought. Much of this may reflect American history's postmodernist cultural turn, which has tended, generally speaking, to see emphasizing violence, especially against women and minorities, as a pedagogical necessity. But if such subjective aspects of the ascendant view seem beyond empirical criticism, the supportive arguments by historians of homicide, expressed in percentages and ratios, are not.

This essay offers a critical overview of the debate over western violence as played out in the effort to apply statistical means of resolving the controversy. But quantifying

⁶ Vernon L. Parrington, *Main Currents in American Thought*, (New York, 1927–30), 3:15–6; Harvey Wish, *Society and Thought in Modern America*, 2nd ed. (New York, 1962), 73, 75; Ray Allen Billington, *Westward Expansion: A History of the American Frontier*, 3rd ed. (New York, 1967), 678.

⁷ Billington, *Westward Expansion*, 4th ed. (New York, 1974), 587 and Richard Slotkin, *Gunfighter Nation: The Myth of the Frontier in Twentieth-Century America* (New York, 1992). For a thoughtful discussion of Slotkin's thesis and the issues it raises see Stephen Mennell, *The American Civilizing Process* (Cambridge, UK, 2007), 136–41.

⁸ The relationship between history and the cinema has attracted a large and growing literature in which professional historians have usefully participated. The scholarly consensus is that a historical film need not actually be burdened by "mere accuracy" so long as its portrayal honestly reflects larger historical truth. Unfortunately, this criterion is subjective to the point of being slippery. For overviews, see Robert Brent Toplin, *Reel History: In Defense of Hollywood* (Lawrence, 2002) and Robert A. Rosenstone, *History on Film/Film on History* (Harlow, UK, 2006). For a reasoned take on western history's role see Alexandra Keller, "Historical Discourse and American Identity in Westerns since the Reagan Era," in *Hollywood's West: The American Frontier in Film, Television, and History*, ed. Peter C. Rollins and John E. O'Connor (Lexington, KY, 2005), 239–60. The quote is from Peter C. Rollins, "Film and History: Our Media Environment as a New Frontier," in *Lights, Camera, History: Portraying the Past in Film*, ed. Richard Francavigila and Jerry Rodnitsky (College Station, 2007), 8.

the Wild West is by no means without interesting ancillary issues of fact and interpretation, as the following discussion will show.

The origins of all this deadly prose, this high-violence portrait of the Old West, lie in the mid-nineteenth century. Because the mining camps of the Old West flourished notoriously as early as the 1850s, the first narratives embracing lethal interpersonal violence appeared in writings about these mountain villages. Susan Johnson identifies the first true-crime publication coming out of the Gold Rush as a pamphlet describing an 1852 lynching.⁹ And for the next two decades the genre was strictly low-brow, as exemplified by the fabulously popular “dime Western” novels, which during the Civil War began commodifying the frontier for a mass-market readership. But in the early 1870s, two best-selling authors, Bret Harte and Mark Twain, created an upscale template for Westerns, tailoring their narratives so that comfortably middle-class easterners might take delight in the picturesque and often murderous antics of simple frontier folk.

In 1870 Harte published his first famous collection of short stories set in Gold Rush California. The leading yarn’s leading paragraph, in fact, referred comically to a multicultural saloon fight in which French Pete and Kanaka Joe fatally gunned each other down. Such killings were so common, Harte’s tale suggested, that nobody paid them much attention.¹⁰

Two years later Mark Twain, in the first of his many books, wrote of Nevada’s Virginia City in the 1860s. Bret Harte was at least offering straightforward fiction; Twain pretended to journalism. A man was not respected, said he, until he had “killed his man.” Local celebrities such as Six-Fingered Pete, Pock-Marked Jake, and Sugarfoot Mike each “kept his private graveyard,” were always “on the shoot”—ready for a fight—and cheerfully expected to “die with their boots on.” (Only the “man for breakfast” trope was missing from what would become standard clichés.)¹¹

Although cartoonish, what Twain is humorously describing here is what some western historians are calling a “gunfighter culture” that pervaded the West. The term suggests the self-conscious association of men who hung out together in saloons and routinely engaged in what might be termed the recreational slaughter of one another

⁹ Susan Lee Johnson, *Roaring Camp: The Social World of the California Gold Rush* (New York, 2000), 317–22.

¹⁰ Francis Bret Harte, *The Luck of Roaring Camp, and Other Sketches* (Boston, 1870), 1. A reviewer in one of America’s most prestigious monthly publications lavished praise that was virtually transcendental: “We had reason indeed to be glad that one capable of seeing the grotesqueness of that strange life . . . had his lot cast in it . . . The revolver-echoing cañon, the embattled diggings, the lawless flat, and the immoral bar might well have been believed secure from notice. [But] here we have them in literature not overpainted, but given with all their natural colors and textures, and all their wildness and strangeness of place.” See *Atlantic Monthly* 25 (May 1870): 633.

¹¹ Mark Twain, *Roughing It* (Hartford, 1872), 339, 343–5. For help in evaluating Twain’s comments see the homicide data in Ronald M. James, *The Roar and the Silence: A History of Virginia City and the Comstock Lode* (Reno, 1998), 168.

in liquor-fueled duels. This may grant too much self-conscious organization to the thuggish lumpen bourgeoisie of semiprofessional gamblers, pimps, and other low-end entrepreneurs who infested seemingly every fresh mining camp and railhead. This is not to deny the presence of the occasional "hard case" (characteristically a criminal on the run from an arrest warrant), but these were a distinct minority. Such collectivities hardly composed the frontier equivalent of New York's Bowery Boys or San Francisco's Chinese tongs, both of which enjoyed political power and some measure of official protection.¹²

Nevertheless a quote from an army officer, Colonel Richard Dodge, who knew much of frontier life from the 1840s onward, cautions us skeptics: "Assassination becomes a monomania," Dodge wrote of such western characters. "I have known a frontier ruffian to make a journey of two hundred miles to have a fight with another whose fame as a 'dead shot' rivaled his own."¹³ One is reminded of director Henry King's *The Gunfighter*, the classic 1950 Western in which an aging Gregory Peck complains of repeated encounters with upstart young challengers eager to bring him down (as one of them finally does). Whether such Twainian depictions are more fanciful than factual is still an open question.¹⁴

In the mid-1870s dime Western writers turned from Indians to white outlaws for protagonists, their stories, in the attempt to heighten plausibility, frequently including as characters real denizens of the trans-Mississippi West: Kit Carson, "Calamity Jane" Canary, "Buffalo Bill" Cody, Jesse and Frank James, "Billy the Kid" Bonney, Joaquin Murietta. Deadwood, in Dakota Territory, became a favorite fictional locale and lurid reports of violence and disorder at that mining camp also became a staple of *The National Police Gazette*, the notorious men's magazine of the Gilded Age.¹⁵

Few treatments of the post-Civil War period, however, offered specific body counts for all this mineral-region mayhem. A San Francisco editor broke from the pack in 1854

¹² For the most elaborate expression of the "gunfighter culture" concept, see volume three of Robert K. DeArment's *Deadly Dozen: Twelve Forgotten Gunfighters of the Old West* (forthcoming).

¹³ Richard Irving Dodge, *Our Wild Indians: Thirty-Three Years' Personal Experience among the Red Men of the Great West* (Hartford, 1882), 622. Dodge also quotes "a notorious bully," apparently Wichita's J.E. Ledford, who in 1871 exchanged shots with a posse and was mortally wounded. Ledford thought (incorrectly) that he had killed Deputy U.S. Marshal Jack Bridges. "I am perfectly willing to die," he said, "when I know I take along with me the best pistol-shot on this frontier." For the Ledford fight, see Nyle H. Miller and Joseph W. Snell, *Why the West Was Wild* (Topeka, 1963), 45.

¹⁴ Although I had greatly enjoyed this film when it first appeared, as a western historian in later years I grew skeptical of its central theme. I expressed this skepticism at a conference in which its famous director, Henry King, defended the film's historical veracity quite angrily. For a brief description of this encounter see Evelyn Bachman, "Myth Shot Down at Film Fete," *Boise Idaho Statesman*, 30 June 1976, sec. B, p. 27.

¹⁵ Daryl Jones, *The Dime Novel Western* (Bowling Green, KY, 1978), 75–99, 120–8 and Bill Brown, "Reading the West: Cultural and Historical Background," in *Reading the West: An Anthology of Dime Westerns*, ed. Bill Brown (Boston, 1997), 14–30, 34.

with a quantitative assessment of homicide in his town. "There have been assuredly three hundred murders during the past five years," he asserted. In 1866, Montana editor Thomas Dimsdale was even more specific, stating that precisely 102 persons had been murdered in the territory since the discovery of gold there—a body count confidently repeated as fact by later historians.¹⁶

At the turn of the twentieth century adult Western fiction, in the form of both novels and films, made its appearance. Owen Wister's *The Virginian* (1902) and Andy Adams's *The Log of a Cowboy* (1903) are considered the first serious print Westerns. Each came with the imprimatur of a major trade publisher, Macmillan and Houghton Mifflin respectively. Wister was a privileged Philadelphian whose Harvard classmate, ex-rancher Theodore Roosevelt, had urged him to write the book in the interests of creating a distinctively new American literary genre. Adams, on the other hand, was a bona-fide former Texas cowboy with little formal education who had penned his book simply because he thought the available western fiction to be laughably implausible. So convincingly true-to-life is Adams's narrative that scholars not in the know still take it for a cowboy memoir rather than a novel.¹⁷

Set in the 1880s, neither book includes anything like a blood bath, although Wister offered the (off-scene) lynching of two confessed rustlers and his protagonist endures menacing threats. In Adams's tale the main danger to its trail-driving cast of characters is river crossings rather than shootouts. But both books close with interpersonal confrontations in which a man is killed, Adams's in a crowded barroom fracas and Wister's with what would become another enduring cliché—the set-piece street duel between hero and villain.

Simultaneously, in 1903, the world's first storytelling movie hit the big screen. Edwin Porter's eight-minute *The Great Train Robbery* was a Western in which a posse chases down and decimates a murderous gang of thieves. And soon thereafter, in 1906, the first movie replicating Wister's street duel appeared.¹⁸ Yet, a surprising restraint on

¹⁶ "Homicide Calendar for California, for the Year 1854," *San Francisco Daily California Chronicle*, 30 December 1854 and Thomas J. Dimsdale, *The Vigilantes of Montana* (Virginia City, 1866), 22. I thank Kevin J. Mullen for providing me a copy of the California article. For the repetition of Dimsdale's statistics by respected historians, see Frederick Allen, *A Decent Orderly Lynching: The Montana Vigilantes* (Norman, 2004), 372.

¹⁷ Owen Wister, *The Virginian: A Horseman of the Plains* (New York, 1902) and Andy Adams, *The Log of a Cowboy: A Narrative of the Old Trail Days* (Boston, 1903). For early examples of *Log of a Cowboy* being taken as nonfiction see Wilson M. Hudson, *Andy Adams: His Life and Writings* (Dallas, 1964), 102, 104–7. I have personally encountered the belief as recently as 2006. Perhaps it was this common misapprehension that caused Larry McMurtry to feel free to borrow heavily from Adams in plotting his own trail-driving Western, *Lonesome Dove* (New York, 1985), for which he won the Pulitzer Prize. See especially the startling similarity of McMurtry's chapter 89 with *Log of a Cowboy*, chapter 5.

¹⁸ George N. Fenin and William K. Everson, *The Western: From Silents to the Seventies*, rev. ed. (New York, 1973), 47–59 and William K. Everson, *The Hollywood Western* (New York, 1992), 26–7.



Figure 1. A poignant moment in bio-flic authenticity. The real-life Butch Cassidy and the Sundance Kid (played here by Paul Newman and Robert Redford) prepare to defend themselves from a half-dozen heavily armed Bolivian bandits. “Can you take the two on the right?” asks Sundance. Replies Butch, “Kid, there’s something I think I ought to tell ya—I never shot anybody before.” Photo from *Butch Cassidy and the Sundance Kid* (George Roy Hill, 1969), courtesy 20th Century-Fox/Photofest.

lethal violence characterized the best of the “classic” Westerns that sociologist Will Wright has analyzed more perceptively than the multitude of others still devoting themselves to the subject.¹⁹

In 1939, a defining moment in the production of adult Westerns occurred when Warner Brothers released a big-budget Technicolor spectacular, Michael Curtiz’s *Dodge City*, “the first of the big town-taming Westerns,” as a respected film historian has called it.²⁰ An onscreen prologue terms the village a “wide-open Babylon of the American frontier” and “the town that knew no ethics but cash and killing.” Yet sheriff Errol Flynn has to kill only two evil-doers to pacify Hollywood’s Dodge.

But by the 1930s the real Dodge City had long become a mother lode for those seeking theatrical narrative. Not the movies, but the print media was the popular-culture culprit in the embellishment of Dodge City body counts. Local raconteurs, cheerfully continuing a venerable frontier tradition of telling tall stories to the tenderfoot, slyly dispensed quantitative hyperbole to credulous reporters from metropolitan newspapers. As early as 1879, a Dodge City editor complained that “to live in the ‘wickedest city in the west’ is a source of pride” to some denizens, who delight in describing “the number,

¹⁹ Will Wright, *Sixguns and Society: A Structural Study of the Western* (Berkeley, 1975). In comparison to Wright’s work, most books on Westerns soon come to seem tediously repetitive, even the most respected differing from one another mainly according to the films selected as favorites.

²⁰ Everson, *The Hollywood Western*, 54.

accomplishments and glorious ends of those who rest on 'Boot hill.'” Such fictionalization carried over into the twentieth century. “I suppose I would be safe in saying that from first to last more than 200 men died with boots on at Dodge,” reminisced one elderly resident in 1910. Another reckoned in 1929 that “more than a hundred” shooting victims had been interred on Boot Hill, the settlement’s early cemetery. A moment later he conceded that that might be a slight exaggeration and lowered his estimate to ninety-two.²¹

Looking to support such hefty quantifications, journalist Stuart Lake, writing in the *Saturday Evening Post* two years before publishing his best-selling “autobiography” of Wyatt Earp, poked around for documentation in old Dodge City newspaper files. When he found none, he simply fabricated it. The *Ford County Globe* of 7 May 1878, said Lake, reported two more graves discovered on Boot Hill; actually, there is no such report in the paper for that date. The 14 May issue supposedly chronicled new interments resulting from “a half-dozen shootings”; it didn’t. And Lake transformed a strictly philosophical editorial quip referring to the town’s plan for a formal burial ground—“Hurry up with that cemetery, for ‘we know not the day nor the hour’”—into evidence that space was running out at Boot Hill. Additional Boot Hill burials, wrote Lake, were noted frequently during the fall of 1878; this is false. The 4 February 1879 issue, he said, disclosed that thirty-three bodies had been removed from Boot Hill to Prairie Grove Cemetery; no numerics of any kind are given.²²

Such presumably reliable nonsense prompted much lurid generalization: “The reign of law at Dodge was enforced by the 6-shooter and . . . the court of last resort there was presided over by Judge Lynch” (*Kansas City Star*). “The revolver was the only sign of law and order that could command respect” (*Outing*). “When one was ‘bumped off,’ the authorities just hustled the body out to Boot Hill and speculated upon what else the day would bring forth in bloodshed” (*Literary Digest*). “Bat Masterson, as peace officer at Dodge City . . . added thirty-seven to the graves on Boot Hill” (*Saturday Evening Post*). “Dodge [City] the Old Hell-Raising Trail’s End where Colt was King” (*Liberty*).²³

²¹ *Ford County Globe Dodge City*, 18 March 1879; T.S. Jones quoted in *Topeka Capital*, 6 August 1910; an “old cowman” quoted in Stuart N. Lake, “Straight-Shooting Dodge,” *Saturday Evening Post*, 8 March 1930, p. 24.

²² The writer’s purported as-told-to book was Stuart Lake, *Wyatt Earp: Frontier Marshal* (Boston, 1931). For sharply differing views toward it, compare Casey Tefertiller, *Wyatt Earp: The Life behind the Legend* (New York, 1997), 342 (“Lake was more right than wrong”), with Allen Barra, *Inventing Wyatt Earp: His Life and Many Legends* (New York, 1998), 10 (“Lake wrote a terrific novel”).

²³ “The Seven Able Gun Fighters from Kansas City,” *Kansas City Star*, 13 January 1918; Arthur Chapman, “The Men Who Tamed the Cow-Towns,” *Outing* 45 (November 1904): 138; “The Man Who Put Goodness into the ‘Wickedest Town,’” *Literary Digest*, 22 August 1925, p. 46; Fred E. Sutton, as told to A.B. Macdonald, “Fill Your Hand,” *Saturday Evening Post*, 10 April 1926, p. 15; William MacLeod Raine, “Dodge,” *Liberty*, 19 May 1928, p. 12.

At long last a historian finally challenged the image of unrestrained interpersonal violence in the Old West. The trailblazing effort appeared in 1941, written by Lynn Perrigo, a young University of Colorado doctoral graduate who was to become a well-known authority on the Spanish-American Southwest. Perrigo offered the first systematic body count for any frontier settlement, in this case the mining region above Denver for the period 1862–1872. By exhaustively combing the files of Central City’s old newspapers, Perrigo documented fifty-two “shooting affrays and serious brawls” that occurred in the three main camps—Central City, Black Hawk, and Nevada City—although the death toll amounted to only sixteen men—just 1.5 homicides per year.

“Obviously,” Perrigo concluded, “the Wild West as related to the communities strung along these Colorado gulches can be tamed down considerably.” But, he cautioned, “this study deals with only one small segment of the mineral frontier and more sweeping conclusions await similar detailed investigations of law and order in many other widely separated mining communities.”²⁴

The scholarly response to Perrigo’s challenge proved long in coming. In 1972, Harry Anderson punctured the popular depiction of historic Deadwood and its outlying diggings. During its literally lawless first year of existence, he noted, only J. B. “Wild Bill” Hickok and three other adults fell victim to interpersonal violence.²⁵ A few other scholars have since weighed in. Kevin Mullen, the distinguished historian of lethal criminality in San Francisco, recently confirmed that the number of homicides in that city in the period 1849–1854 was not three hundred, but seventy-eight. And Frederick Allen has painstakingly assured us that the body count for early Montana was not Thomas Dimsdale’s 102, but only eight.²⁶

The problem with these data is that they do not fit into any simple violent/not-too-violent bifurcation. The deflation of editor Dimsdale’s numerical theatrics presumably consigns earliest Montana Territory to the low-homicide category. But San Francisco’s seventy-eight murders are not so easily compartmentalized: is that figure high or not especially high? The answer becomes a matter of what postmodernism usefully terms “framing.” If the frame is nineteenth-century *Police Gazette* journalism or twentieth-century film and television, the answer to the question posed is not so high. But if the frame is a moral sensibility about lethal violence, reflecting, at the extreme, poet John Donne’s meditation on the community’s diminishment by the loss of a human single life, then a body count of seventy-eight inescapably supports the high-homicide school.

Framing problematizes my own early contribution to the violence controversy. Over the past decades I’ve made much of frontier Dodge City’s having suffered less

²⁴ Lynn I. Perrigo, “Law and Order in Early Colorado Mining Camps,” *Mississippi Valley Historical Review* 28 (June 1941): 41–62. The quote is from 61–2.

²⁵ Harry H. Anderson, “Deadwood, South Dakota: An Effort at Stability,” *Montana The Magazine of Western History* 20 (January 1970): 40–7.

²⁶ Kevin J. Mullen to Robert Dykstra, 18 March 2008, in author’s possession and Allen, *A Decent Orderly Lynching*, 9, 117.



Figure 2. Gun control in the Wild West? Better believe it. The intersection of Bridge and Front streets at Dodge City, Kansas, in the winter offseason of 1878–1879. The topmost sign, nailed to the superstructure of a disused well, reads: “The Carrying of Fire Arms Strictly Prohibited.” Photo courtesy of the Kansas State Historical Society.

than twenty violent fatalities in the cattle-trading years, the result of strict gun-control measures enforced by a heavy police presence. Those contrarian data have lent support to the not-so-violent view.²⁷

But framing is much too subjective, too relativistic to satisfy hard-core empiricists. And here one approaches the crux of all questions stemming from body counts: where is the numeric breaking point between high and not-so-high? Ambiguous examples abound. Wyoming’s legendary Johnson County War resulted in two deaths. New Mexico’s equally notorious Lincoln County War, featuring Billy the Kid as a combatant, claimed either twenty or twenty-one victims. The State of Texas, infamous for its late-nineteenth century civil violence, hosted four especially lethal “wars.” The San Saba County War witnessed nineteen deaths, the Sutton-Taylor feud produced twenty-

²⁷ Robert R. Dykstra, *The Cattle Towns* (New York, 1968), 144. I wrote that Dodge City’s adult homicides totaled fifteen in number. In the last several years, however, two additional homicides have come to light, raising the cattle town’s killings to seventeen.

four, the Lee-Peacock feud twenty, and the McCade vigilante outbreak twenty-three.²⁸ Once again, how is the historian to judge these body counts? Two is obviously low, but what about nineteen through twenty-four? Whether these are high, low, or centrist body counts illustrates the complexities of quantitative interpretation.

The most significant aspect of these Texas data, it seems to me, is that when the killings reached the twenties the community stepped in and forced a halt to the blood-letting. For example, the editor of the *Victoria Advocate* presumably helped bring the Sutton-Taylor feud to a close in 1877 or 1878 by angrily reminding citizens that “this slaughtering of men on our highways, and in the very towns, is an infamous disgrace to our civilization. It should be stopped. There [are] enough law-abiding citizens, and they are ready and willing to respond to the Sheriff’s call.”²⁹

Lately the historiography of frontier violence has moved on: it’s no longer a matter of simply showcasing these or those fatalities, but of computing the ratio of corpses to inhabitants at risk. The hope has been to resolve by this means the either/or dilemma.

Roger McGrath’s study of two California mining camps, Aurora for the period 1861–1864 and Bodie for 1877–1882, appeared two decades ago. Together, his two villages experienced an average of around 4.8 murders per year. This was high indeed by Dodge City standards, where as many as five deaths occurred only once and was considered a civic disaster. But what was new and different about McGrath’s findings was that he presented his data in the form of homicide *rates* rather than raw numbers.³⁰

Criminologists inaugurated homicide rates in the early-twentieth century. The first central listing appeared in 1927, followed a few years later by the initial volume of the Federal Bureau of Investigation’s *Uniform Crime Reports*, still published today. For the nation’s largest Metropolitan Statistical Areas (MSAs) homicide rates are calculated and printed annually. In 2006, the list, the most recent as of this writing, included 349 United States MSAs. The figures, strictly speaking, are for “criminal homicide”—that is, “murder and non-negligent manslaughter”—thus excluding justifiable killings by the police. The body counts are always processed and recorded as “per 100,000 persons” in each MSA.³¹

²⁸ Helen Huntington Smith, *The War on Powder River: The History of an Insurrection* (New York, 1966), 204, 208, 212, 222; Robert M. Utley, *High Noon at Lincoln County: Violence on the Western Frontier* (Albuquerque, 1987), 49, 58, 61, 64, 72, 76, 94, 102, 104, 114, 133, 155, 218n34; C.L. Sonnichsen, *I’ll Die before I Run: The Story of the Great Feuds of Texas* (New York, 1962), 24–33, 50–94, 169–84, 209–19.

²⁹ Quoted in Leon Metz, *John Wesley Hardin: Dark Angel of Texas* (El Paso, 1996), 114.

³⁰ Robert Dykstra, review of *Gunfighters, Highwaymen & Vigilantes*, by Roger McGrath, in *Annals of the American Academy of Political and Social Science* 481 (September 1985): 189–90.

³¹ Richard H. Steckel, “Big Social Science History,” *Social Science History* 31 (Spring 2007): 27–8. The FBI’s annual report for recent years is available on the Internet. For the 2006 city-by-city data see FBI, *Crime in the United States 2006*, table 6 (“Crime in the United States by Metropolitan Statistical Area”), <http://www.fbi.gov/ucr.cius2006> (accessed 16 March 2008). My consideration of MSAs excludes those of Puerto Rico, a geographical outlier like Guam or American Samoa.

The formula for homicide rates is simple enough: 100,000 divided by population multiplied by killings. Possible rates range from 0.0 (no homicides at all) to 100,000.0 (a population wipe-out, as from a poison-gas attack). In practice, modern rates tend to be modest rather than extraordinary. In 1980, for example, the homicide rate for drug-drenched and gang-plagued greater Miami rose to a substantial 32.7, America's highest that year.³²

At about this moment medievalists thought to apply the FBI methodology to historical populations and compare the results with those of the Florida city. James Given reported a murder rate for London in 1276 that almost matched the yearly average for modern Miami. Barbara Hanawalt argued even more elaborately that the homicide rate in London, 1300–1348, soared well *above* that of contemporary Miami—something between 36.0 and 51.4.³³

In 1984, borrowing the medievalists' innovation, Roger McGrath's study of Aurora and Bodie disclosed that the annual murder rate at the latter averaged out at a very large 116.0 per 100,000 residents. Other western historians followed suit. In 1997, Clare McKanna made Bodie seem a model of civic decorum by reporting that at Globe, Arizona, 1880–1884, the homicide rate soared to an enormous 152.0. Two years later, John Boessenecker topped both McGrath and McKanna. For 1850–1851, he wrote, the homicide rate at Los Angeles reached a stratospheric 1,240.0, "by far the highest known homicide rate ever reported in the United States."³⁴

Prompted by the notion that the enormity of such calculations might be getting out of hand, in 1996 I introduced its practitioners to the "fallacy of small numbers," the methodological dangers of composing FBI-type ratios for tiny populations and relatively modest body counts, then comparing the very high resulting rates to those from modern Miami, New York, and other MSAs.

Are such comparisons legitimate? Or is it a classic case of apples and oranges?

One consideration is ballistics. In the Old West probably most shooters carried single-action .44 or .45 caliber revolvers that required manual cocking before each firing, a good aim, and a steady hand. Lucky head shots aside, the weapons' low velocity and heavy, round-nosed, lead alloy bullets usually killed by tearing large wound cavities

³² FBI, *Crime in the United States—1980: Uniform Crime Reports* (Washington, DC, 1981), 74.

³³ James Buchanan Given, *Society and Homicide in Thirteenth-Century England* (Stanford, 1977), 36, 39 and Barbara A. Hanawalt, *Crime and Conflict in English Communities, 1300–1348* (Cambridge, MA, 1979), 98–9, 271–2, 301n133.

³⁴ McGrath, *Gunfighters, Highwaymen & Vigilantes*, 253–5; Clare V. McKanna, Jr., *Homicide, Race, and Justice in the American West, 1880–1920* (Tucson, 1997), 39, 41; John Boessenecker, *Gold Dust and Gunsmoke: Tales of Gold Rush Outlaws, Gunfighters, Lawmen, and Vigilantes* (New York, 1999), 323. I have found it helpful to readers to report homicide rates carried out to one decimal so as to differentiate them from ordinary cardinal numbers. Where other authors have not followed this useful practice I have added ".0" to each reported rate. I have done the same for confidence intervals (see below).

from which victims rapidly bled out, and a stomach wound was a death sentence. Today the handgun preferred by military and police (and street criminals) is the 9-millimeter high-velocity semiautomatic pistol able to deliver a fusillade of ten or fifteen lightweight rounds in seconds, none of which (again excepting a head shot) may individually cause death. There is still dispute between “heavy bullet” traditionalists, who have much praise for the stopping power of the old six-shooter, and “high velocity” theorists favoring the newer weapons and their ammunition. The result for our purposes seems to be a wash: there is no firm evidence for an important imbalance of handgun killing technology between old and new eras.³⁵

What is unequivocal, however, is that every modern MSA contains professional police forces pledged to suppress violence and sophisticated trauma centers capable of treating serious gunshot wounds. Consider this as against a frontier village making do with a township constable and a physician or two necessarily ignorant of aseptic surgery. (Joseph Lister’s reforms wouldn’t begin to take hold in America until the late 1880s.)³⁶ Here is where the true difference lies between handgun lethality in the Old West versus in today’s urban world. Homicide rate comparisons, therefore, might be regarded as profoundly ahistorical.³⁷

Still, students of historical homicide continue making such comparisons, and no doubt (as in this essay) will continue doing so. Therefore, if the question of police establishments and improvements in trauma surgery and resuscitation techniques are to be ignored, the default criticism remains, as always, the fallacy of small numbers.

Observe the tiny populations on which McGrath, McKanna, and Boessenecker base their calculations. Bodie and Los Angeles barely qualified as urban. With thirty-one felonious killings, the former was something like 2,500 in population in 1850–1851, the latter, with twenty-nine homicides, had maybe 5,000 residents in 1877–1882. Globe was what today would be called “rural nonfarm.” With fourteen homicides, it held a population of just 1,582 in 1880.

These data illustrate a fixed principle governing homicide rates: modest body count + small population = large homicide rate. An illuminating example is to be found in a comparison of Dodge City in 1880 with greater Miami a hundred years later.

³⁵ The serious literature on handguns is large and often technical. For the basics, see Robert A. Rinker, *Understanding Firearm Ballistics*, 6th ed. (Clarksville, IN, 2005). Still very informative and interesting is Julian S. Hatcher, *Textbook of Pistols and Revolvers: Their Ammunition, Ballistics, and Use* (Plantersville, SC, 1935). The traditionalist case for the old .45 Colt revolver is made by Elmer Keith in two books: *Sixguns: The Standard Reference Work* (Harrisburg, 1955), 288, and *Hell, I was There!* (Los Angeles, 1979), 302–3.

³⁶ For the vastly improved (and improving) ability of modern emergency room personnel to treat gunshot wounds successfully, see Anthony R. Harris et al., “Murder and Medicine: The Lethality of Criminal Assault, 1960–1999,” *Homicide Studies* 6 (May 2002): 128–66. One might argue that the use by some criminals of automatic shoulder weapons, as against nineteenth century Colts and Winchesters, can be seen as in some measure redressing the imbalance—that is, we have better emergency care today, but also a more lethal type of weapon available for misuse.

³⁷ I thank John McClymer for offering this observation.

Miami and Dodge City Compared

	<u>Killings</u>	<u>Population</u>	<u>Homicide Rate</u>
Miami 1980	515	1,572,842	32.7
Dodge 1880	1	996	100.4

This startling juxtaposition can also be expressed in another statistical form: one murder had 1,646 times the numerical impact on Dodge in 1880 than it would have had on greater Miami in 1980.³⁸

South Florida officials reacted almost hysterically to their murderous situation in late 1980, initiating a desperate flurry of state and local emergency measures to staunch the flow of blood and bad publicity. One West Flagler Street lawyer, significantly enough, likened Miami's business district to Dodge City and the O.K. Corral.³⁹

It might be hypothesized that a single killing in a frontier village of 996 residents might have had the same or even more social and psychological impact. But that didn't happen. Rather than beefing up funding for law-enforcement, as in Miami, Dodge Citians in late 1880 only narrowly averted an effort to legally disestablish the town in order to reduce taxes. While publicly deploring the death of the well-liked Henry Heck in a lethal dispute (over a woman) with John "Concho" Gill, community activists vexed themselves far more with fiscal concerns—the potential loss of saloon license revenues by the imposition of liquor prohibition in Kansas—than a single murder in their midst.⁴⁰

In any event, there is simply no getting around this methodological problem of small venues. It cannot be avoided because the key variables, population and body counts, are organically entangled in homicide rate computations, each influencing the other. And the larger the population of a place, the lower its homicide rate will tend to be.

³⁸ For the Miami data see note 32 above. A number of social scientists have deplored scholars' contrasting of metropolitan murder rates with those for tiny rural venues. See Brian Wiersema, Colin Loftin, and David McDowell, "A Comparison of Supplementary Homicide Reports and National Vital Statistics System Homicide Estimates for U.S. Counties," *Homicide Studies* 4 (November 2000): 325–8. See also, William Alex Pridemore's complaint that not enough has been done to address "the problem of extreme values resulting from just a few homicides in a small county." Alex Pridemore, "A Cautionary Note on Using County-Level Crime and Homicide Data," *Homicide Studies* 9 (August 2005): 266n5.

³⁹ Robert Boyer, quoted in Wendell Rawls, Jr., "Crime Termed 'Berserk' in Miami," *New York Times*, 23 December 1980, sec. A, p. 1. For Dade County's official response to the crisis, see the following articles all in the *Miami Herald*: "Metro Commission Recognizes Anti-Crime Leadership Group," 21 December 1980, "Neighbors" sec., p. 5; Elizabeth Willson, "Ordinance Pressures Violent Bars," "Neighbors" sec., pp. 26–7; "3 Suspects Charged in Restaurant Killings," 23 December 1980, sec. A, p. 4; Eston Melton, "State Funds Sought for Crime War," 24 December 1980, sec. B, p. 2.

⁴⁰ *Dodge City Times*, 20 November 1880 and 11, 18, 25 December 1880 and *Dodge City Ford County Globe*, 23 November 1880, 21 December 1880, 4 January 1881, 12 April 1881.

Thus, Miami protested its 1980 title of America's most dangerous city: after all, its 515 murders didn't hold a candle to those reported from greater Los Angeles, which buried a total of 1,731 victims that season. But the California MSA merited only a 23.3 homicide rate, compared to Miami's 32.7. The reason for this statistical inequity was simply that in 1980 Los Angeles had almost five times as many residents as Miami.⁴¹

Urban administrations still wrestle with their image problems vis-à-vis murder rates and population size. In 2006, the city of Detroit suffered a large rate of 47.3 per 100,000 residents, qualifying it as America's most lethal city that year. Yet its municipal executives must have been pleased that the FBI submerged this datum in the larger "Detroit-Warren-Livonia" MSA, which lowered the homicide rate to a modest 11.3. Similarly with the runner-up in the homicide sweepstakes: Flint, Michigan. Its large 45.7 rate disappeared into the modest ratio of 15.4 for Genesee County.

Motown and its neighbor found themselves confronting the same challenge as Savannah, Georgia, twenty years earlier. At some point in the 1980s, the FBI's annual compilation pinpointed Savannah, with a relatively substantial rate of 22.6, as the nation's most dangerous city. In the words of writer John Berendt, "A stunned Mayor John Rousakis looked at the figures and complained that Savannah had been the victim of a statistical fluke. The numbers reflected murder rates in *metropolitan* areas. Unlike most cities, Savannah did not have vast outlying suburbs with thousands of untroubled suburbanites to dilute its murder rate."⁴²

Western history also provides evidence of enlarged-residency mitigation of homicide ratios. Clare McKanna's study of various California locales again proved vulnerable to the small-numbers fallacy. In the 1850s, when San Luis Obispo County registered nineteen killings, its homicide rate stood at a very large 107.0. Forty years later, in the 1890s, it again was the site of nineteen fatal encounters, but this time its homicide rate for the decade stood at a modest 12.0.⁴³ What had changed between the 1850s and the 1890s? We may guess that the county had laid on more cops and that many of the early troublemakers were long gone. But what absolutely *guaranteed* that the murder rate would drop is that while its raw body count stayed the same, San Luis Obispo's total population of 356 in 1850 had rocketed to 16,072 by 1890.

⁴¹ FBI, *Crime in the United States—1980*, 73.

⁴² John Berendt, *Midnight in the Garden of Good and Evil* (New York, 1994), 332–3. Such criticisms have impelled the FBI to insert a cautionary preamble to their online listings. "Each year when *Crime in the United States* is published," it warns, "many entities—news media, tourism agencies, and other groups with an interest in crime in our Nation—use reported figures to compile rankings of cities and counties . . . These rankings lead to simplistic and/or incomplete analyses that often create misleading perceptions adversely affecting cities and counties, along with their residents." The statement closes by imploring users not to compare "statistical data of individual reporting units." See http://www.fbi.gov/ucr/cius2006/about/variables_affecting_crime.html (accessed 16 March 2008).

⁴³ Clare V. McKanna, Jr., *Race and Homicide in Nineteenth-Century California* (Reno, 2002), 7–8.

In other words, like modern Detroit, a western town might not be able to reduce the number of saloon drunks shooting or slashing or pummeling each other to death, but it could smoothly dispel any bad publicity through population growth, the easiest form of which was annexing its peaceable suburbs.

Before his untimely death in 2005, probably the most respected figure in historical homicide studies, Eric Monkkonen, was deep into his work on criminal violence in early Los Angeles. He had initially dismissed my concerns about venue size as “strange.” But he soon acknowledged the issue, in one of his last publications, conceding that “when Los Angeles was small, it took only two or three homicides to generate an enormous per capita rate.”⁴⁴

In 2004, Monkkonen suggested a plausible solution to the small-numbers fallacy, which he was not able to publish, but which became known among interested historians. It was that venues deemed too underpopulated to merit the calculation of murder rates might be lumped together, creating a statistical “virtual” community of sufficient size.⁴⁵

But Monkkonen’s proposal poses problems of its own. Again the issue of a numeric threshold intrudes itself. Lumping together small populations is all very well, but exactly at what point do they add up to a population large enough to base per-100,000 homicide rates on?

And what of the *character* of the small venues being conjoined? Unfortunately, those selected for statistical amalgamation may subtly depend on what’s to be proved or disproved. I’ve been accused of arguing that the Old West was, as a critic once put it, “a wholesome, tranquil place.”⁴⁶ That misrepresents. But if I were forced to support the proposition, I’d do it by cherry-picking a sample—for example, Greeley, Colorado; Russell, Kansas; Odessa, Texas; and Palo Alto, California—all western “temperance towns” where intoxicating beverages had been legally outlawed. I doubt anyone would find evidence in such covenanted communities of feuding bad men and swift, straight-

⁴⁴ Eric Monkkonen, review of *Race and Homicide in Nineteenth-Century California*, by Clare V. McKanna, in *Pacific Historical Review* 72 (August 2003): 447 and Eric H. Monkkonen, “Homicide in Los Angeles, 1827–2002,” *Journal of Interdisciplinary History* 36 (Autumn 2005): 171.

⁴⁵ Robert Dykstra to Eric Monkkonen and Monkkonen to Dykstra, 20 March 2004, in author’s possession. It was reported in one of Monkkonen’s posthumously published articles that I had estimated “an overall homicide rate of 14.4 per 100,000 for the West” (italics added). That was a regrettable error for which he personally was not responsible. See Eric Monkkonen, “Western Homicide: The Case of Los Angeles, 1830–1870,” *Pacific Historical Review* 74 (November 2005): 610n10.

⁴⁶ Thomas J. Noel, review of *Gunfighters, Highwaymen & Vigilantes*, by McGrath, in *American Historical Review* 90 (February 1985): 230.

shooting marshals. In early Palo Alto, for example, the town marshal is described as having little to occupy himself except lying in wait for petty bootleggers.⁴⁷

On the other hand, should one wish to prove that the Old West was extravagantly murderous then his or her option would be to pick small populations in a few notoriously non-tranquil sub-regions: the range cattle country, early mining districts, and wilderness lumber camps. Except in these areas, as Walter Nugent thoughtfully concluded twenty years ago, the Wild West was conventionally peaceable and law-abiding.⁴⁸

Monkkonen and I never had a chance to explore his suggestion, but I'm sure he would have agreed that smaller communities thus grouped should possess some intrinsic similarity, be they cattle towns, mining towns, mill towns, fishing villages, resort areas, Hispanic settlements, and so forth. And geographic proximity of study populations could also be a criterion. For example, one might examine homicide rates for the roughly twenty-five counties of the Piney Woods section of Texas or those of some other swath of western landscape that seems to have reflected a distinct regional culture.

We might wish that the historian of lethal violence possessed something like the hundreds of small-venue homicide rates available to sociologists and criminologists via the FBI's annual compendiums. Such scholars are able to reverse the research process, making the homicide rate the independent variable. They could, for instance, single out all the communities with zero homicides for 2006—scattered throughout that year's listing from Altoona to Winchester—and then work on isolating the societal attributes that set these peaceable kingdoms so prominently apart. Alas, the historical data so far collected remain much too rare and random to allow historians such investigative luxury.

But one category of homicide for which western historians have finally accumulated enough data to allow a plausible composite population concerns lynching. Illegal executions were presumably always smaller in number than conventional homicide; they tend to be easier to document because they are more conspicuous in newspapers and other records (including photographs), and systematic attempts to enumerate them began as early as 1882. Thanks to historians Ken Gonzales-Day, Robert Tórréz, and Stephen Leonard, we may combine for analysis the data from three entire states—California, New Mexico, and Colorado—for the same four decades, giving us very large study populations for which no concern need be expressed about the fallacy of small numbers. The average numbers of residents are my own computations. The “lynching rate,” if I may coin a term, is calculated like ordinary homicide rates as per-100,000 inhabitants. They register as relatively small, even tiny.

⁴⁷ Works Projects Administration, *Kansas: A Guide to the Sunflower State* (New York, 1939), 360; Bess Allen Donaldson, *Prairie Girl: Memoirs of the Midwest* (Galesburg, IL, 1971), 96–7; Velma Barrett and Hazel Oliver, *Odessa: City of Dreams* (San Antonio, 1952), 3–5; Arthur Coffman, *An Illustrated History of Palo Alto* (Palo Alto, CA, 1969), 20.

⁴⁸ Walter T. Nugent, “Frontiers and Empires in the Late-Nineteenth Century,” *Western Historical Quarterly* 20 (November 1989): 393–408.

Lynching Homicides in Three Western States, 1861-1900⁴⁹

<u>Decade</u>	<u>Lynchings</u>	Average	
		<u>Population</u>	<u>Lynching Rate</u>
1861-70	106	636,614	5.5
1871-80	131	589,293	7.5
1881-90	125	1,482,758	2.8
1891-00	38	2,003,496	0.7

Does this display tell us anything we didn't already know? With the establishment of regular courts and law-enforcement agencies proceeding apace, a steady lowering of the lynching rate also occurred. No surprise there. Perhaps the most interesting information to be derived is from a contrast of these western data with equally good data (from the final two decades) for one post-Reconstruction southern state.

Lynching Homicides in Louisiana, 1881-1900⁵⁰

<u>Decade</u>	<u>Lynchings</u>	Average	
		<u>Population</u>	<u>Lynching Rate</u>
1881-90	84	1,029,267	0.8
1891-00	153	1,250,107	1.2

What is implied here is that around the year 1890 lynchings changed from being a punishment meted out to rustlers, horse thieves, and frontier murderers to a phenomenon associated with violence against African Americans in the Deep South. Further specific research on the correlates of lynching in the two regions will no doubt bear this out.

Still, one must be careful not to extrapolate lynching rates to rates of ordinary homicide. In 1888, for example, an illegal execution in punishment for an alleged murder occurred in otherwise notoriously peaceful Greeley, Colorado. (The perpetrators believed the victim's social standing might get him off.) At about the same time in equally placid Russell, Kansas, residents lynched three men suspected of the particularly outrageous robbery-murder of a popular citizen. Some larger relationship

⁴⁹ Ken Gonzales-Day, *Lynching in the West, 1850-1935* (Durham, 2006), 231-3; Robert J. Tórréz, *Myth of the Hanging Tree: Stories of Crime and Punishment in Territorial New Mexico* (Albuquerque, 2008), 159-62; Stephen J. Leonard, *Lynching in Colorado, 1859-1919* (Boulder, 2002), 173. In 1882 the *Chicago Tribune* began publishing an annual inventory of lynchings and in 1919 the National Association for the Advancement of Colored People (NAACP) followed suit with a listing reaching back to 1889. A meticulously revised inventory for the Deep South is the basis for Stewart E. Tolnay and E.M. Beck, *A Festival of Violence: An Analysis of Southern Lynchings, 1882-1930* (Urbana, 1995).

⁵⁰ Michael J. Pfeifer, *Rough Justice: Lynching and American Society, 1874-1947* (Champaign, 2004), 162-72.

between the summary execution of murderers and run-of-the-mill felonious homicide invites exploration.⁵¹

The most recent contributor to the small-venue problematic has been Randolph Roth, who in 2007 offered two methodological suggestions. These, he insisted, would prove that “the West was extraordinarily homicidal” and that “there is no such thing as a ‘fallacy of small numbers.’”⁵²

Roth’s first idea was to subtract from any study population residents aged fifteen and younger in order, said he, to eliminate “the upward bias in frontier homicide rates caused by the relatively low proportion of children in the population on most frontiers.” But this is flawed logic. Removing *any* residents from populations being examined does not counter an upward bias, but just the opposite: it *inflates* murder rates by making populations smaller. Consider again the case of Dodge City in 1880. If the number of those aged fifteen and under are removed from the town’s population that year the homicide rate rises from a very large 100.4 to an enormous 136.4.

Roth’s second suggestion, if equally unorthodox, requires more elaborate consideration. The calculation of so-called confidence intervals (CIs for short) is normally limited to assessing the validity of statistical samples. But as applied by Roth a CI test begins by reconceptualizing a per-100,000 homicide rate as an “estimate” rather than a calculated hard datum. Yearly rates are then plugged into a formula that yields a CI—that is, a statistical spread between high and low *possible rates*. If the “estimate” lies within the CI then it is very likely accurate—so long as the CI spread is not unusually large, in which case the study population needs to be expanded to reduce that range.⁵³

Roth first demonstrated the procedure with lethal violence in Oregon Territory, 1850–1865. During this period Oregon suffered 114 murders, according to the body count accumulated by David Peterson del Mar, and its homicide rate was a substantial 30.0 (about the same rate as eleventh-ranked Philadelphia in 2006). Roth then subjected his Oregon calculation to a CI test, which revealed that the spread ranged from 23.0 to 38.0 points. Into this interval 30.0 fit snugly, telling Roth that his estimate had “proven

⁵¹ Leonard, *Lynching in Colorado*, 90–1 and Donaldson, *Prairie Girl*, 103–5.

⁵² Randolph Roth, “Guns, Murder, and Probability: How Can We Decide which Figures to Trust?” *Reviews in American History* 35 (June 2007): 165–6, 168–75.

⁵³ “A very wide interval may indicate that more data should be collected before anything very definite can be said about the parameter . . . The wider the confidence interval, the less the precision.” See Valerie J. Easton and John H. McColl, “Confidence Intervals,” www.cas.lancs.ac.uk/glossary_v1.1/confint.html (accessed 28 October 2006).

accurate.” And he assured readers that “the relatively narrow and high range”—a CI spread of only 15.0 points—reinforced the Oregon rate’s certainty.⁵⁴

Oregon Territory’s population averaged about 23,000 per year. But to see how a CI works for a much smaller venue let’s return to frontier Dodge City. Consider the town’s homicide rate over the ten years 1876–1885—that is, its cattle-trading decade. Residents averaged 1,082 per year and their newspapers recorded 1.7 killings annually. That calculates out to a murder rate of 157.1, an enormous figure, over three times the rate for America’s most dangerous city in 2006. When this rate is subjected to a CI test, however, the resulting spread is also enormous, ranging from 46.3 to 273.9—a CI width of fully 227.7 points. This looks suspiciously like the small-venue fallacy is affecting CIs as well as rates.

A metaphor seems useful here. Convert percentage points to feet and inches, and imagine you are target shooting. In the Oregon case, the bull’s eye is 15.0 inches in diameter. Your “estimated” homicide rate is an arrow. The arrow hits the bull’s eye and therefore your technique has proved flawless. But in Dodge City’s case the bull’s eye is 227.7 inches in diameter—almost *nineteen feet*, the broad side of many a backyard barn. That your arrow easily hits such an outsized target proves nothing at all.

So it is with confidence intervals. The gross contrast between 15.0 points and 227.7 points certifies that Dodge City’s computed homicide rate is nonsense, a glaring statistical exaggeration. It proves that tiny Dodge City in the cowboy era just can’t support an FBI-type murder rate. No CI test will remedy that. A statistician, as noted above, would advise increasing the size of the study population so as to narrow the spread. But that can’t be done for the cattle town because a single decade’s worth of residents is all there was.

So, as a result of the fallacy of small numbers, we reach a methodological dead end. Clearly the most parsimonious and easily understood manner of summarizing lethal violence in the Dodge of 1876–1885 is to describe it simply as an average of 1.7 incidents of lethal violence per year.

The bulk of Roth’s essay concerns California in the Civil War era, analyzing violent deaths in eleven counties of that state. His CI calculations outwardly support all the homicide rates listed in his tables. But having prided himself on the narrow 15.0 CI spread for Oregon, Roth now prints the results of California CI tests that sharply

⁵⁴ Roth’s formula is: $\pi = p \pm 2.58 \sqrt{(p * (1 - p))/n}$. As he explains, “Here, ‘ π ’ stands for the real, but unknown homicide rate; ‘ p ’ stands for the ratio of the number of homicides to the number of persons at risk in Oregon, 1850–65–114 divided by 373,964 (the average adult population times 16 years); ‘ n ’ stands for the number of persons at risk—again, for Oregon, 373,964.” See Roth, “Guns, Murder, and Probability,” 167. The author should also have noted that the figure 2.58 is a “ t value,” which requires the formula to provide a 99 percent chance that the “estimated” homicide rate is correct. See table 5 (“ t Critical Points”) in Thomas H. Wonnacott and Ronald J. Wonnacott, *Introductory Statistics for Business and Economics*, 4th ed. (New York, 1990), 775. A far simpler means of devising confidence intervals is to let the Internet do the work. My own computations in this essay have relied on www.physics.csbju.edu/cgi-bin/stats/cstats (accessed 11 November 2008).

contradict his own reported rates: Santa Barbara County's spread is an enormous 101.0 points, San Luis Obispo's is a huge 186.0 points, and Monterey's is a colossal 496.0 points. These three counties combined averaged only 1,746 residents per year, so are, like Dodge City, much too small, even collectively, to yield plausible murder rates.⁵⁵

Continuing his essay, Roth grouped the eleven venues into three subsets: ranching, mining, and commercial/farming counties—the third group being merely a catchall merging urban San Francisco and Sacramento with rural San Joaquin.

California Counties, 1850-1865⁵⁶

	<u>Killings</u>	<u>Average Population</u>	<u>Homicide Rate</u>	<u>CI Spread</u>
Ranching	364	3,324	237.6	547.4
Mining	504	12,445	89.7	178.9
Commercial/farming	378	20,768	46.4	74.6

Each subset, Roth concluded on page 170 of "Guns, Murder, and Probability," was "very homicidal." Indeed, murder rates range from a colossal 237.6 down to a very large 46.4 per 100,000 inhabitants. But their CI spreads also range from colossal down to merely enormous. And note the groups' average number of residents per year, which demonstrates *seriatim* that as population rises the homicide rate subsides—in short, the continuing influence of venue size. What this further indicates is that CIs are of zero heuristic value in such statistical presentations. They do no more than ratify the already obvious fact that larger study populations tend to yield smaller homicide rates and vice versa.

Finally, Roth considered nine of his counties as a single entity, a sample, as it were, of the central and southern regions of the state. On page 171 of "Guns, Murder, and Probability," he summarized his results as showing that "the interval for all of southern and central California was between 60 and 70 per 100,000 adults per year—seven times the homicide rate in the United States today." What Roth seems to be saying here is that the sample's homicide rate was about 65.0 and its accompanying CI spread only about 10.0 points. These figures, unfortunately, are in error. According to my calculations, Roth's nine counties yield a very large murder rate of 99.8 and an enormous CI spread of 111.3 points.

The magnitude of such a point spread presumably nullifies the validity of Roth's nine-county murder rate. But, one might add, so what? This CI test has been no more essential to understanding homicide rates than those cited earlier. Roth's combined

⁵⁵ Confidence interval spreads calculated from Roth, "Guns, Murder, and Probability," table 2, p. 172, by subtracting the Lower Rate figures from the corresponding Upper Rate. The Average Population of each of the three counties is listed in Roth's table 1, p. 171. It should be noted that the author's Population at Risk calculations of table 1 are an unnecessary elaboration; yearly rates for his counties are most easily computed by transforming his Homicides listings into yearly averages and using his Average Population figures as denominators.

⁵⁶ Confidence interval spreads calculated from Roth, "Guns, Murder, and Probability," tables 1 and 2.

sample, averaging 36,537 Californians annually, can be allowed to stand on its own merits—that is, it is either large enough or too small, depending on judgments independent of what a CI test has to say.

An experiment suggests itself: Let us select a single year from Roth's sample to see how results compare to those for the sixteen-year sample. We simplify by selecting 1860, which provides a good complement to Roth's broader study, lying about midway between his end-dates of 1850 and 1865. And 1860 coincides with the Eighth United States Census, so requires no tricky interpolations between head-counts. And it can't be challenged on small-numbers grounds: the combined population of the nine counties that year stood at a statistically healthy 143,885.⁵⁷

The 1860 study population registered fifty-nine violent deaths. That computes out to a homicide rate of 41.3, a large but entirely plausible figure. It is, in fact, on par with that for Detroit in 2006.

Why does the 1860 homicide rate deviate so remarkably from Roth's composite figure of 99.8 for 1850–1865? The reason was the tiny populations in most of Roth's counties during the early 1850s. The effect of averaging these with the Civil War years was to drive down the number of inhabitants, thus activating the fallacy of small numbers, and therefore elevating the murder rate.

Analyzing the 1860 California sample may show that "the West was extraordinarily homicidal," Roth indicates on page 166 of "Guns, Murder, and Probability"; but only if one feels free to use the same words to describe today's Detroit. Neither venue, one supposes, could be called a wholesome, tranquil place. But perhaps a little common sense might be helpful. If a person didn't regularly hang out with a bad crowd, stay up past midnight in public places, and overindulge in drink he or she would probably have felt no more threatened by violent death in frontier California than in modern Detroit or Flint or Miami.

This essay should not be construed as merely criticizing other laborers in this particular vineyard. For the many years that I've participated in the factual and methodological debates enlivening the field of violence studies new databases have been constructed, new approaches and statistical tests have been devised, and a new generation of practitioners has appeared. The controlling motive of this essay has been to help channel all this labor-intensive effort toward some methodological and interpretive precision with which all might be able to agree. In that spirit I offer a few recommendations.

(1) *The fallacy of small numbers should be considered a statistical fact.*

We might hope that some exceptionally gifted scholar comes up with a systematic way to circumvent the problem. Until then we can only ponder some guidelines.

⁵⁷ Population figures from Joseph C.G. Kennedy, *Population of the United States in 1860* (Washington, DC, 1864), 28–32 and California homicide data from Criminal Justice Research Center, Historical Violence Database, files for Los Angeles (author Eric Monkkonen), for San Francisco (author Kevin Mullen), and for Trans-Mississippi West, data set 2 (author Clare V. McKanna, Jr.), <http://cjrc.osu.edu/researchprojects/hvd/usa.html> (accessed 1 April 2008).

How small, in this context, is a small population? Or, to put it more precisely, how large should a venue be to merit a homicide rate calculation? Where is the statistical threshold between numerically inadequate and large enough?

Among historians of violence there is not yet a glimmer of consensus. Eric Monkkonen, while cognizant of the dilemma, avoided a specific threshold figure. Randolph Roth termed early San Francisco (with an average population of 40,368) “small.”⁵⁸ But he later expressed himself as disinclined as Monkkonen to consider a threshold. Peter Spierenburg, whose essays on lethal violence embrace European as well as American data, said much the same thing.⁵⁹

All homicide-studies scholars would probably agree that the ideal study population consists of at least 100,000 persons. But this is not sacrosanct; the 2006 FBI survey includes murder rates for nineteen MSAs (less than 1 percent of the total) that fall below that figure. These small-scale cities averaged 83,255 in size. Their fewer inhabitants, for the record, did not make for a large homicide rate, which came to a tiny 2.5, in large part because three of its components (Sandusky, Ohio, and Ames and Dubuque, Iowa) reported no murders at all for 2006.

Especially if historians of violence are to continue using MSA homicide rates for comparison—and there is a compelling argument for doing so, despite police forces and trauma centers that suppress modern rates—then we really should agree to some reasonable standard. For populations below the consensus threshold, killings would be characterized by simple annual averages, as in the 1.7 per year for cattle-trading Dodge City noted above.

Could 80,000 inhabitants be a threshold homicide scholars might be persuaded to live with? That’s double Roth’s definition of “small,” so has much to say for itself.

(2) *We also could use some careful thinking about what should be considered a “high” homicide rate.*

However imperfectly, the present essay tries to suggest qualitative differences between rate sizes by the use of adjectives of calibrated magnitude: *stratospheric* (1,240.0), *colossal* (496.0 to 224.4), *enormous* (186.0 to 136.4), *very large* (116.0 to 74.6), *large* (51.0 to 41.3), *substantial* (34.0 to 22.6), *modest* (17.6 to 11.3), and *tiny* (5.5 to 0.7). Perhaps the figure 40.0, approximately Detroit’s 2006 rate, would be a good dividing point between “high” and rates of lesser degree—keeping in mind Miami’s 32.7 rate per 100,000 that in

⁵⁸ Roth’s judgment of San Francisco County’s size is embedded in a phrase referring to all his California data: “There is every probability—despite the *small size of each county individually*—that [the sample counties] were very homicidal.” See Roth, “Guns, Murder, and Probability,” 170 (italics added).

⁵⁹ These remarks were conveyed to me verbally at a session titled “Not the Usual Suspects: New Perspectives on ‘the Criminal,’” Social Science History Association annual meeting, 25 October 2008, Miami. A major figure in historical homicide studies who does devote substantial attention to the small-venue problem, however, is Kevin J. Mullen. See Mullen, *Dangerous Strangers: Minority Newcomers and Criminal Violence in the Urban West, 1850–2000* (New York, 2005), 31–2, 78, 84, 105.

1980 its citizens viewed as hideously extravagant. In any event, it's clear that historians of the West can never hope to resolve the Violent/Not Especially Violent problematic until there is some consensus about judging the statistics.

(3) *Those collecting nineteenth-century homicide data for the nineteenth-century West should continue to do so.*

The best (perhaps the only) quantitative way to decisively approach the “tranquility” argument would be to survey, let's say, all surviving county records in a single western state to discover the jurisdictions with early coroner's inquest records; as Clare McKanna has convincingly demonstrated, these are the preeminent source for body counts. Official police records are also excellent sources, but seem to be limited to larger cities. The default source is newspapers, at their most reliable in providing sustained evidence if extant for an unbroken span of years.

In any case, the target state's data-rich counties—or an adequate sample thereof—could then be subjected to statistical scrutiny. The results would be considered beyond dispute for that particular state, as the data now are for lynching deaths in nineteenth-century California, New Mexico, and Colorado.

(4) *Meanwhile it is worth remembering, for important context, that substantial rates of felonious homicide occurred in many localities in the late-nineteenth century, not just in the American West.*

Western exceptionalism may govern some historical matters relating to criminality; as I demonstrated years ago, for example, white females brought to trial for felonies in the Old West avoided jail with a great deal more frequency than their sisters in the rest of the United States.⁶⁰ But as numerous scholars have noted, the western experience was part and parcel of a larger American strain of violence. Consider Cincinnati, Ohio. In 1883, its ninety-two murders and incidents of manslaughter yielded a substantial homicide rate of 34.0, twice the modest 17.6 rate for wild and woolly San Francisco in 1860. As we have already seen, comparative data on lynching suggests that by the latter 1880s the Wild West was not in the same league with the Deep South when it came to this particular form of murder.⁶¹

Much remains to be done in devising broad and systematic measures of interpersonal violence beyond the 95th meridian that establishes a more reasonable cultural

⁶⁰ While white males suffered incarceration in roughly the same proportion of the population in the trans-Mississippi West (64.0 percent) as in the United States as a whole (68.4 percent), white women made up only 33.7 percent of western female convicts as against 63.1 percent nationwide. (The figures are for 1904, the earliest available.) See Robert R. Dykstra, “Violence, Gender, and Methodology in the ‘New’ Western History,” *Reviews in American History* 27 (March 1999): 84–5.

⁶¹ Giles Vandal, *Rethinking Southern Violence: Homicides in Post-Civil War Louisiana, 1866–1884* (Columbus, 2000), 22–3. The San Francisco rate was calculated from Criminal Justice Research Center, Historical Violence Database online. (See note 57.)

portrait. Some will interpret any such goal as removing the necessary outrage from frontier studies, others will see it as removing the fun. But discussing brutal behavior in the Old West should not require statistical fictions.

Nor should it keep historians from enjoying Westerns, although it might prompt a more proactive critical stance toward such cinematic productions as Clint Eastwood's feminist and implausibly multicultural *Unforgiven* (1992) or David Milch's Home Box Office TV series *Deadwood* (2004–2006). The former features a group of beleaguered prostitutes exercising agency: they run newspaper ads to recruit somebody to kill their local sheriff. That's a historical impossibility, of course; any such overt criminal gambit and its attendant publicity would have provoked an avalanche of journalistic hilarity, news features passing from paper to paper until an embarrassed state or territorial attorney general would have been forced to intervene.

Unforgiven nevertheless swept the Motion Picture Academy awards in 1993, winning an extraordinary four Oscars, including those for Best Director and Best Picture.

In producing the equally celebrated *Deadwood* miniseries, David Milch appropriated an idea from the writers of the old dime Westerns: he included as main characters real-life residents of Deadwood Gulch in 1876. For the historian-critic this raises the bar: what *Wouldn't have happened* becomes the even more serious *Didn't happen*. Al Swearngen, Sheriff Seth Bullock, Sol Star, Charley Utter, Calamity Jane, George Hearst, and several other protagonists were actual persons. The portrayals of these historical figures often bordered on identity theft, especially when implicating them in numerous fantasy homicides.⁶²

In *Deadwood's* initial episode Bullock summarily hangs one of his own prisoners to keep him out of the hands of a mob, then aids Wild Bill Hickok in a lethal fast-draw duel with a murder suspect. (In fact, the hangings—there were actually two of them—took place according to strict legal formula within the well-guarded confines of the Montana State Prison. And neither Hickok, who died soon after arriving at Deadwood, nor Bullock, who went on to a long and distinguished career in law-enforcement, ever killed anybody in South Dakota.)⁶³ In the program's concluding episode the central

⁶² My guess is that (at least before plot boredom set in) most viewer negativity toward *Deadwood* rose from its ferocious, hour-after-hour barrage of sexual profanity. Judging from personal conversations and postings on the H-Net Web site, even historians reacted in puzzlement about the nineteenth-century's use of such words. (Helpful in this regard is Geoffrey Hughes, *Swearing: A Social History of Foul Language, Oaths and Profanity in English*, rev. ed. [London, 1998].) In any event, one doubts that profane insults were in such strenuous use among males with easy access to firearms. In Adams's *The Log of a Cowboy*, gun-toting Texans address one another with elaborate verbal courtesy, and Owen Wister's main character inaugurates the iconic low-decibel threat later immortalized in popular culture. "When you call me that," he says, objecting to being termed a son-of-a-bitch, "Smile!" See Wister, *The Virginian*, 36.

⁶³ For the actual executions over which Bullock presided see *Helena Daily Herald*, 13 August 1875 and *Helena Daily Independent*, 29 October 1875. That Bullock never had to kill anyone in his years as a sheriff and deputy U.S. marshal is certified in Kenneth C. Kellar, *Seth Bullock: Frontier Marshal* (Aberdeen, 1972), 109. Hickok's last lethal encounter occurred in Kansas in 1871. See Miller and Snell, *Why the West Was Wild*, 201–3.

characters—including, absurdly, Sheriff Bullock himself—criminally conspire in slitting the throat of a young woman in order to satisfy the murderous rage of mining capitalist George Hearst. (Nothing I've seen suggests that the father of publisher William Randolph Hearst was quite as demonic as *that*.) And throughout the series multiple murder victims are routinely spirited off to a local pigpen, where they become the 1870s equivalent of Nutrena Hog Chow.

The Academy of Television Arts and Sciences voted *Deadwood* no less than seven Emmys. The series also won prestigious Golden Globe, Peabody, and TV Critics awards.

Do we bona-fide western historians feel concern that such bizarre de-mythologizing will be taken for historical verisimilitude by generations of students, film-studies scholars, critics, public intellectuals, and lovers of Westerns? We should. Many of us pay scant attention to the popular perception of frontier history; I know of only one other western historian besides myself, for instance, who sat through all thirty-six episodes of *Deadwood*. By default we leave others to interpret its cultural messages.

Of sixteen authors represented in a recent anthology on Milch's TV series, a single essayist held an American history appointment. The transcendent justification for the show's murderous fictions, as one contributor put it, is that "American society was built upon a foundation of inhumanity and bloodshed. In *Deadwood* this history . . . is left out in the open to bloat and decay before our eyes."⁶⁴

If such intellectual incandescence lights one's path through the Old West then nothing in the present essay is apt to prove instructive. But the rest of us—forever trying to capture the precise shapes and textures of frontier society—might want to keep just a few representative numerics in mind.

Imposing icons of frontier triggerometry still bestride the West of the imagination. But excluding his military service, Wild Bill Hickok was responsible for only seven, maybe eight, shooting deaths, one of them by mistake. Wyatt Earp accounted for, at most, five victims, three of them (as at the O.K. Corral) collaborative hits. Call it two plus three assists. W. B. "Bat" Masterson, excluding firefights with Indians, killed but once—or possibly not at all.⁶⁵

Naturally enough, there were exceptions to prove the rule. The serial killer John Wesley Hardin, a Texan, is the most celebrated case. His autobiography admits responsibility, with a kind of self-satisfied detachment, for between thirty-four and forty-one victims. (The separation of dead and wounded is occasionally ambiguous, and for

⁶⁴ Amanda Ann Klein, "The Horse Doesn't Get a Credit: The Foregrounding of Generic Syntax in *Deadwood's* Opening Credits," in *Reading Deadwood: A Western to Swear By*, ed. David Lavery (London, 2006), 100.

⁶⁵ Joseph G. Rosa, *They Called Him Wild Bill: The Life and Adventures of James Butler Hickok*, 2nd ed. (Norman, 1974), 47, 76, 144, 147, 157, 196–7; Tefertiller, *Wyatt Earp*, 24, 122–3, 227, 234–5, 238; Robert K. DeArment, *Bat Masterson: The Man and the Legend* (Norman, 1979), 62–6.

several hits Hardin amiably shares credit.) The wonder is that biographers have taken the man at his word. My own judgment is that plausible external evidence supports only fifteen of Hardin's claimed individual or joint killings.⁶⁶

And consider this case. In 1871, just sixty miles west of John Wesley Hardin country, authorities at the notoriously rowdy town of San Antonio swore in an Irish-born army veteran named John Fitzhenry as an officer of the law. Fitzhenry served in that capacity for the next fifty years. Remarkably, in his half-century on San Antonio's mean streets he never had to shoot anybody.⁶⁷

A lot of folks will find that hard to believe, but it's a fact.

⁶⁶ I count as plausibly documented Hardin's killings of Major Holshousen, Benjamin Bradley, one Judge Moore, Jim Smalley, one Bideno, Charles Couger, Green Paramore, and J.B. Morgan. The same goes for seven criminal homicides in which he probably collaborated: three Mexican cowboys, Jack Helm, Charles Webb, and two Pinkerton Detective Agency stringers. See Metz, *John Wesley Hardin*, 14, 20–1, 32, 43, 60, 69–70, 74–5, 106, 111, 138–9, 162, 172, 205. Richard C. Marohn, *The Last Gunfighter: John Wesley Hardin* (College Station, 1995), 300, offers a handy guide to Hardin's claimed killings, although the author's "Total 42 men killed" overstates the number by one.

⁶⁷ "Fifty Years a Policeman," in *The Trail Drivers of Texas*, ed. J. Marvin Hunter (Nashville, 1925), 825–8.