

Enlarging MINNESOTA

WILLIAM E. LASS

SIZE IS ONE OF THE ESSENTIAL WAYS of describing a state. With the exception of several minor adjustments, Minnesota's boundaries have not changed since the advent of statehood on May 11, 1858. Nonetheless, over the last 150-plus years, Minnesota has had a number of "official" areas. Measurements have been influenced by the availability of complete, accurate maps, the determination of boundaries, the definition of "inland waters," and, most recently, the use of sophisticated Geographic Information System (GIS) cartography by the United States Census Bureau.

The congressional authorization to form Michigan, Wisconsin and, finally, Minnesota specified boundaries, of course, a portion of which ran through Lake Superior. Over time, the greatest variable in fixing Minnesota's area has been its portion of Lake Superior relative to the amount calculated for adjoining states.

When Michigan became a state in 1837, its realm included most of the big lake. Its northernmost boundary was the United States-Canada demarcation, which nearly bisects the lake, angling from its southeast tip north and west to "a point where the said line last touches Lake Superior." From this spot at the mouth of the Pigeon River, Michigan's westernmost boundary ran south-southwest to the mouth of the Montreal River. These boundaries placed Isle Royale, the lake's largest island, in extreme northwestern Michigan.¹

FACING: Although the counties have changed since William H. Gamble's County Map of Minnesota was published in Mitchell's New General Atlas in 1877, the map faithfully portrays the state's most familiar outline.

Because the Montreal River was part of Michigan's western boundary, it naturally became a portion of Wisconsin's eastern boundary when that territory attained statehood in 1848. From the mouth of the river's main channel, the first section of Wisconsin's Lake Superior boundary ran "to the middle" of the lake. From that point, its northernmost boundary lay "through the centre of Lake Superior to the mouth of the St. Louis River; thence up the main channel of said river to the first rapids in the same, above the Indian village, according to Nicollet's map." When Minnesota joined the union in 1858, it was assigned that portion of Lake Superior west of Michigan and north of Wisconsin.² Although the three states all included parts of Lake Superior, subsequent calculators of their areas acted as if the boundaries ended at the lakeshore.

DURING MINNESOTA'S FIRST 50 YEARS, three federal agencies—the General Land Office, census bureau, and U.S. Geological Survey—as well as the Minnesota Geological and Natural History Survey all played roles in determining the state's size. Relying on federal public-land surveys, the General Land Office in 1860 first reported Minnesota's area as 83,531 square miles. Twenty years later, Henry Gannett, geographer and special agent for the census, reduced the calculation by 166 square miles. Minnesota State Geologist Newton Horace Winchell complained that Gannett's figure had

*William E. Lass, professor of history emeritus, Minnesota State University, Mankato, has written extensively on Minnesota history and American frontier history. His most recent book is *Navigating the Missouri: Steamboating on Nature's Highway, 1819–1935* (2008).*



State Geologist Newton S. Winchell, who believed that census bureau calculations short-changed Minnesota by some 920 square miles

short-changed Minnesota by 921.58 square miles. He noted that Gannett had not only failed to consider Minnesota's half of Lake of the Woods and Rainy Lake but also had given only round-number estimates for seven unorganized northern counties and reported erroneous totals for two western counties.³

In the early-twentieth century, officials from the census bureau, geological survey, and land office conducted a joint, systematic study of state areas. Their aim was to compile and issue a single, authoritative set of federal statistics. During their discussions about the meaning of "area" they even calculated the extent of coastal waters for states abutting the Great Lakes. Evidently, there was some support for including these precise calculations in the total state areas. But in their 1906 report, the officials merely identified each state's lake area as containing "approximately an additional number of square miles." Minnesota's 84,682 square miles represented a slight gain over its 1880s area.⁴

The federal government did not revise state areas again until 1940, when the census bureau slightly reduced Minnesota's to 84,068 square miles. Most of the adjustment was caused by cartographic refinements. But a small portion of the inland-water subtotal, which had increased, resulted from a 1920 U.S. Supreme Court decision that resolved a Minnesota-Wisconsin controversy over the boundary in the St. Louis River estuary.⁵

While compiling the 1940 census, the bureau's administrators and geographers again considered the possibility of adding coastal waters to the state-area totals but, ultimately, again decided against doing so. Instead, the census report included a separate table of "WATER AREA, OTHER THAN INLAND WATER, FOR STATES BY PRIMARY BODIES OF WATER." Minnesota was credited with 2,212 square miles of Lake Superior, com-

pared to 16,231 for Michigan and 2,675 for Wisconsin. In essence, the bureau acknowledged that each of the states encompassed some of the lake but did not add those portions to the official areas. The same principle was applied all other Great Lakes and ocean-fronting states.⁶

WHILE THIS SOLUTION PROBABLY SEEMED like an artful compromise to census personnel, it was sharply criticized by Chase S. and Stellanova Osborn, the principal champions of a "Greater Michigan." Born in 1860, Chase Osborn was, by the 1940s, in the literary stage of a long, colorful life that featured newspaper publishing, iron-ore prospecting, and politics. He had served in various state administrative positions before he was elected Michigan's governor in 1910. His two-year term as a progressive Republican highlighted his political career. After failing to be re-elected or nominated for the U.S. Senate, he turned to writing on a variety of topics. While he and his adopted daughter Stellanova were doing research on the Hiawatha legend, he attempted to have Michigan's claims in lakes Huron, Michigan, and Superior added to the state's official area.⁷

In attacking the census bureau's decision, the Osborns noted, "It will be a surprise to practically every one to realize that the leading reference books of the world give

Minnesota's Shifting Size

Altered boundaries, changing definitions, and advancing technology have all contributed to fluctuations in Minnesota's total area as reported by federal officials. Area totals below are square miles.

YEAR	AREA
1860	83,531
1880	83,365*
1906	84,682
1940	84,068
1990	86,943
2000	86,939

* Minnesota State Geologist Newton H. Winchell quarreled with the 1880 figure; he said the total should be 84,286.58 square miles.



For a wide-ranging look at Minnesota maps, atlases, geographic features, and more, visit www.mnhs.org/maps.

The 1947 compact fixed the interstate boundaries in both Lake Michigan and Lake Superior, the latter provision, of course, affecting Minnesota.

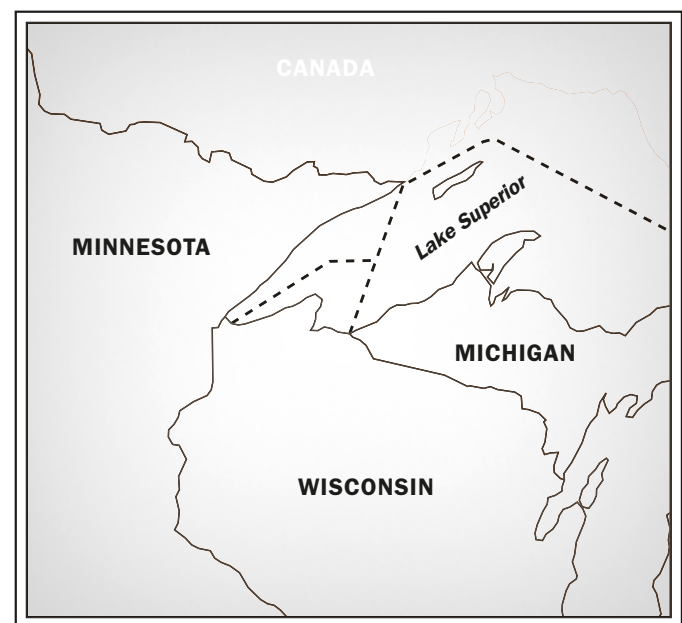
the total area of the United States some 61,000 square miles less than it actually is; the State of Michigan some 40,000 square miles less.” In self-defense, the various reference publishers replied to the Osborns that they were merely quoting official census bureau figures. But the Osborns insisted that the bureau had betrayed them, because director William L. Austin had promised that Michigan’s area would be changed to include its share of the Great Lakes. They complained in *Science* magazine that after Austin left the office in 1940, his successor, J. C. Capt, had reneged on the pledge.⁸

Responding for the census bureau, two of its principal geographers, Clarence E. Batschelet and Malcolm J. Proudfoot, insisted that anyone could easily compute Michigan’s total area by referring to the 1940 water-area table. The heart of their defense, however, was the contention that expanding Michigan could conceivably create a problem with ocean-fronting states, which, like Michigan, might be lured by the traditional American quest for bigness. Determined to have the last word, the Osborns not only responded in *Science* but expanded their case in a 1945 book.⁹

Despite their arguments, neither the Osborns nor the U.S. Census Bureau had absolutely accurate statistics for the Michigan, Wisconsin, and Minnesota areas in Lake Superior, because the demarcations in the nineteenth-century enabling acts had never been precisely defined. The three states finally negotiated and signed a boundary compact in 1947. This agreement was prompted by a long-standing controversy between Michigan and Wisconsin over their boundary from the headwaters of the Montreal River to and through Green Bay to their Lake Michigan demarcation. The U.S. Supreme Court had twice considered this issue and, in its final 1936 ruling, not only resolved the inland-boundary question but also defined the line through Lake Michigan.¹⁰

The 1947 compact fixed the interstate boundaries in both Lake Michigan and Lake Superior, the latter provision, of course, affecting Minnesota. In Lake Superior,

Michigan’s western boundary started at the point “where the line through the middle of the Montreal River enters Lake Superior” and ran directly to the point “where a line drawn through the most easterly point of Pigeon Point and the most southerly point of Pine Point intersects the international boundary.” The southern half of this 108.86-mile boundary separated Michigan and Wisconsin and the northern half, Michigan and Minnesota. Its midpoint—the middle of the lake as specified in Wisconsin’s enabling act—was the starting point for the Minnesota-Wisconsin demarcation, which was defined with reference to four points equidistant between designated spots on the Minnesota and Wisconsin shores. This 109.18-mile demarcation comprised three direct line courses to a western terminus, the “midpoint in a direct line at right angles to the central axis of the Superior entry between the tops of the eastern ends of the pierheads at the lake-ward ends of the United States government breakwaters at the Superior entry to Duluth Superior Harbor.”¹¹



Interstate boundaries in Lake Superior, for Minnesota, Wisconsin, and Michigan, finally fixed in 1947

The Arrowhead region cedes its borderland prominence when Minnesota's Lake Superior area is included.

Before the end of 1947, the compact was approved by the three state legislatures and governors. On June 30, 1948, it was enacted into federal law by a joint resolution of both houses of Congress.¹² These precise boundaries made it possible to definitively measure the Lake Superior area of the three states.

THE MINNESOTA AREA REPORTED in the 1940 census was accepted longer than any of its predecessors. It stood until 1990 when the census bureau decided, after all, to include coastal waters in the areas of the Great Lakes and ocean-bordering states. The advent of Global Positioning System cartography, based on satellite imagery and digital mapping programs, had yielded a wealth of accurate data. The bureau developed a digital database of geographic features, which it named Topographically Integrated Geographic Encoding and Referencing (TIGER). The 1990 TIGER statistics increased Minnesota's area to 86,943 square miles (79,617 land, 7,326 water)—the biggest gain in the history of the state's shifting size.¹³

The inclusion of Minnesota's 2,546 square miles of Lake Superior, in turn, increased the size of counties bordering the lake: Cook, Lake, and St. Louis. Cook County gained slightly more than two-thirds of this new area, vaulting it to second place in size among Minnesota's counties and making its water area larger than its land area. Lake County received more than one-fourth of the Lake Superior area, and St. Louis County, bordering the lake's narrowest reach, gained the remaining one-twentieth.¹⁴

Minnesota's enlargement was relatively modest compared to other states with coastal waters. Alaska, a huge peninsula, gained coastal waters to a three-mile limit, growing slightly more than 10 percent. The Osborns would be pleased to know that Michigan was, by far, the biggest gainer of the Great Lakes states. Its share of lakes Huron, Michigan, and Superior amounted to 38,301 square miles, boosting it from twenty-third to the eleventh-largest state in the nation. Despite various shifts

of position among the 50 states, Minnesota remained at twelfth because its added Lake Superior area made it larger than Utah.¹⁵

IT MAY SEEM THAT AREA is an arcane statistic, of interest only to trivia seekers. But the addition of Great Lakes waters to Minnesota, Wisconsin, and Michigan changes perceptions of them. Before the 1990 census, there was no state east of Minnesota larger than it. Now, Michigan, the giant of states east of the Mississippi, holds that honor.

The traditional image of Minnesota as ending at the Lake Superior shore will also have to be reconsidered. The Arrowhead region—that pronounced piece of land



Detail, Minnesota Land Use and Cover, 1990s Census of the Land, showing the state's portion of Lake Superior.

wedged between Ontario and Lake Superior in the state's northeast—cedes its borderland prominence when Minnesota's Lake Superior area is included. In addition, the conventional wisdom that Minnesota is bordered by North Dakota, South Dakota, Iowa, and Wisconsin will have to be revised to include Michigan.

And, finally, the Land of 10,000 Lakes has lost bragging rights on one of its definitive features. It was historian Theodore C. Blegen who wrote, "The total area of the state in square miles has been measured as 84,068, and of this, water occupies 4,059 square miles—a greater water area than that of any other state." (Others have

also cited these figures.) Future writers will not be able to make this watery claim.¹⁶

The inclusion of Lake Superior waters in Minnesota's area has changed not only its size but also its shape. Although nearly two decades have passed since the census bureau's decision, the new dimensions have only recently been portrayed in some published maps.¹⁷ General recognition that Minnesota, south of its international boundary, abuts five states will take far longer. But, as changes are made in geographies, maps, and histories, Minnesota's location relative to all of its neighbors will become established. □

Notes

1. *U.S. Statutes at Large*, 5 (1837): 49.
2. *U.S. Statutes at Large*, 9 (1848): 56, and 11 (1858): 166 (Minnesota's boundaries).
3. Malcolm J. Proudfoot, *Measurement of Geographic Area* (Washington, D.C.: U.S. Bureau of the Census, 1947), 74, 80; Henry Gannett, *The Areas of the United States, the Several States and Territories, and Their Counties* (1881), reprinted in Proudfoot, *Measurement*, 88–89; N. H. Winchell, assisted by Warren Upham, *The Geology of Minnesota* (Minneapolis: Johnson, Smith & Harrison, 1881), 1: 114–15.
4. Henry Gannett, *The Areas of the United States, the States, and the Territories* (1906), in Proudfoot, *Measurement*, 111–13. The 84,682 square miles included 3,824 of inland water. Minnesota's share of Lake Superior was 2,514 square miles.
5. Proudfoot, *Measurement*, 117; *Minnesota v. Wisconsin*, 252 U.S. 273 (1920). The total included less land than in 1906 (80,009 square miles) but more inland water (4,059).
6. Proudfoot, *Measurement*, 117.
7. On Chase Salmon Osborn, see *American National Biography* (New York: Oxford University Press, 1999), 16: 782; *Biographical Directory of the Governors of the United States, 1789–1978* (Westport, CT: Meckler Books, 1978), 2: 757. For the Osborns' writings on the Hiawatha legend, see *Schoolcraft, Longfellow, Hiawatha and "Hiawatha" with Its Original Indian Legends, Compiled, with Essays on Its Authentic Background of Lake Superior Country and Chippewa Indians* (Lancaster, PA: Jaques Cattell Press, 1942 and 1944, respectively).
8. Chase S. Osborn and Stellanova Osborn, "Area Figures for United States and Great Lakes States," *Science*, June 11, 1943, p. 543.
9. C. E. Batschelet and M. J. Proudfoot, "Census Areas for the United States, 1940," *Science*, July 30, 1943, p. 107–08; Osborn and Osborn, "The Census Bureau and the Great Lakes Area Situation," *Science*, Oct. 8, 1943, p. 323–24, and *Errors in Official U.S. Area Figures* (Lancaster, PA: Science Press Print Co., 1945).
10. Lawrence Martin, "The Michigan-Wisconsin Boundary Case in the Supreme Court of the United States, 1923–26," *Annals of the Association of American Geographers* 20 (Sept. 1930): 105–63, and "The Second Wisconsin-Michigan Boundary Case in the Supreme Court of the United States, 1932–1936," *Annals of the Association of American Geographers* 28 (June 1938): 77–126. For the Supreme Court's rulings, see *Michigan v. Wisconsin*, 270 U.S. 295 (1926), and 272 U.S. 398 (1926); *Wisconsin v. Michigan*, 297 U.S. 547 (1936).
11. Minnesota, *Session Laws, 1947*, ch. 589.
12. *U.S. Statutes at Large*, 62 (1948): 1152.
13. U.S. Bureau of the Census, *Statistical Abstract of the United States*, 1991, table 347. The 2000 census changed these figures slightly to 86,939 (79,610 land, 7,329 water); *Statistical Abstract of the United States 2008*, table 348. The bureau rounded all area measurements to the nearest whole number.
14. Census Bureau, *Statistical Abstract, 2008*, table 348; Norman W. Anderson, GIS Project Specialist, Minnesota Office of Geographic and Demographic Analysis, St. Paul, to the author, July 10, 2008; Census Bureau, "Minnesota—County Population, Housing Units, Area and Density: 2000," http://factfinder.census.gov/servlet/GCTSubjectShowTablesServlet?_lang=en&ts=263392758591 and select table GCT-Ph1 (accessed June 18, 2009).
15. *Statistical Abstract, 1990*, table 337, 2008, table 348; Philip E. Wells, Program & Planning Analyst, Wisconsin Demographics Service Center, Madison, to the author, July 11, 2008.
16. Theodore C. Blegen, *Minnesota: A History of the State* (Minneapolis: University of Minnesota Press, 1963), 6. For another example, see George M. Schwartz and George A. Thiel, with the assistance of Peggy Harding Love, *Minnesota's Rocks and Waters: A Geological Story* (rev. ed., Minneapolis: University of Minnesota Press, 1976), 7.
17. See, for example, John Fraser Hart and Susy Svatek Ziegler, *Landscapes of Minnesota: A Geography* (St. Paul: Minnesota Historical Society Press, 2008), 292; David A. Lanegran with the assistance of Carol L. Urness, *Minnesota on the Map: A Historical Atlas* (St. Paul: Minnesota Historical Society Press, 2008), 201. Neither map shows Minnesota's adjoining states.

The maps on p. 306 and 310 are courtesy the David Lanegran Collection; the photograph of Winchell is in MHS collections.



Copyright of **Minnesota History** is the property of the Minnesota Historical Society and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. Users may print, download, or email articles, however, for individual use.

To request permission for educational or commercial use, [contact us](#).