TURNING COMMUNITIES OF INTEREST INTO A RIGOROUS STANDARD FOR FAIR DISTRICTING

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Recent technological advances make possible a practical, rigorous application of communities of interest (COIs) to redistricting measures. Geographers, political scientists, and legal scholars have suggested that keeping communities together can enhance representational fairness. As other paths for redressing gerrymandering have closed in recent years, communities of interest provide a key legal criterion to guard against partisan and racial motives in redistricting. However, the existing literature on communities of interest is fractured between differing conceptions of the term as well as concerns of subjectivity in the identification of communities. We advocate for a novel approach that encompasses a theory of community-based political representation as well as practical, technologically innovative methodology for documenting communities of interest. Specifically, two quantifiable standards—the Effective Splits Index and the Uncertainty of District Membership—can be leveraged to judge the degree to which a community of interest has been split. By equipping citizens with these new tools, technology can provide a workable and rigorous standard for use of communities of interest as a criterion for fair districting.

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INTRODUCTION

Flushing, Bayside, and Bay Terrace are three equidistant neighborhoods in the borough of Queens in New York City. By car, it takes less than twenty minutes to travel between them. Yet, as they sing in Sesame Street, one of these things is not like the others.

In Flushing and Bayside, Asian Americans represent the most populous racial group, consisting mostly of recently arrived Chinese American immigrants, as well as a substantial number of Korean Americans. These residents share many common concerns and needs, including language assistance, access to social services, affordable housing, and public safety, particularly concerning the perceived targeting of Asian crime victims. Bay Terrace, on the other hand, is more affluent and residential, with a majority-white population. It has a low crime rate, an independent express bus system, and concerns about excessive

^{2.} ASIAN AM. LEGAL DEF. & EDUC. FUND, ASIAN AMERICAN COMMUNITIES OF INTEREST SURVEY IN NEW YORK CITY 5 (2011), https://www.aaldef.org/uploads/pdf/intervenor-lee-attachment%20b.pdf.

^{3.} Id. at 5-6.

new development.⁴ In short, Flushing and Bayside share priorities that are distinct from those of Bay Terrace.

Flushing and Bayside constitute an example of a *community of interest* (COI), which we define as a geographic area with recognized similarities of interest, such as ethnic, social, and economic identities. COIs are of special importance in the U.S. system of government, in which elected representatives are assigned to represent geographically contiguous districts. Because of this district-based system, the ability of a community to express its interests via elected representatives depends strongly on how the district boundaries are drawn. Conversely, as the American electorate has become more diverse, a community may be at risk of inadequate representation if it is divided among multiple electoral districts.

Despite their shared interests, Flushing and Bayside have historically been divided among multiple electoral districts, thus diluting the minority voting strength of Asian American communities (Figure 1). From 1997 to 2002, these neighborhoods were split between three congressional districts—and following the 2002 redistricting cycle, between two.⁵ From 2002 to 2010, in the state legislature, Flushing and Bayside were collectively divided between four Assembly districts. The New York City Council district map after the 2000 Census likewise split Bayside and Flushing, placing Bayside in District 19 with Bay Terrace. Potential voters and candidates faced racial intimidation: In the 2009 race for Council District 19, Korean American candidate Kevin Kim and his supporters were subjected to anti-Asian slurs and property vandalization.8 Early in the campaign, the New York City Police Department investigated a hate crime in which a group of white male teenagers verbally harassed two Korean American volunteers with chants of "White Power!" and launched a physical assault that resulted in injury.9 Ultimately, Kim lost the election. In essence, by being split into multiple districts, Asian American voters in Flushing and Bayside had no plausible route to electing their candidates of choice.

^{4.} Congressional and State Legislative Redistricting: Public Hearing Before the N.Y. State Legis. Task Force on Demographic Rsch. & Reapportionment, 56-57 (N.Y. 2012) (statement of MacKenzie Yang, Member, OCA-NY), https://nystateassembly.granicus.com/DocumentViewer.php?file=nystateassembly_c0871737c09079cbe76ebe0a8d2b49a6.pdf&view=1; see Ryan Brady, Bay Terrace Blasts 215th St. Development Plan, Queens Chron. (July 20, 2018), https://www.qchron.com/editions/north/bay-terrace-blasts-215th-st-development-plan/article 4c75dc64-8c59-11e8-bd33-c3a1aafc29b6.html.

^{5.} Lee Intervenors' Submission to Magistrate Judge Roann Mann with Respect to Congressional Redistricting Pursuant to Order Dated Feb. 28, 2012 at 6-7, Favors v. Cuomo, No. 11-CV-5632, 2012 WL 928216 (E.D.N.Y. Mar. 12, 2012), https://www.aaldef.org/uploads/pdf/intervenor-lee-memorandum.pdf.

^{6.} See ASIAN AM. LEGAL DEF. & EDUC. FUND, supra note 2, at 4-5.

^{7.} See id. at 6.

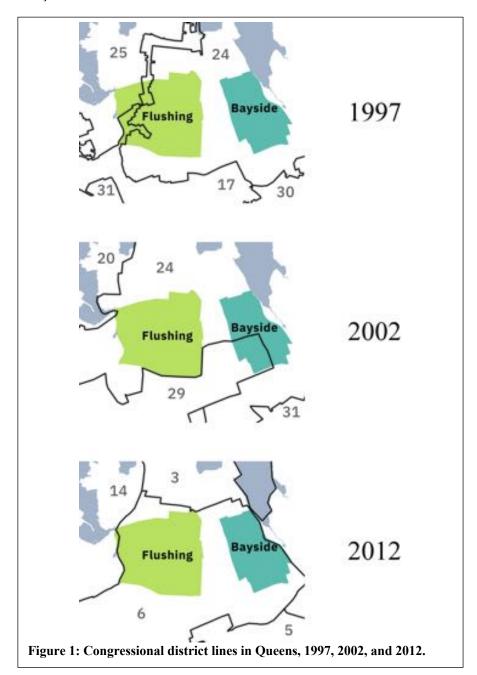
^{8.} AALDEF Complaint to DOJ: Voting Rights Violations in Queens City Council District, ASIAN AM. LEGAL DEF. & EDUC. FUND (July 7, 2010), https://www.aaldef.org/press-release/aaldef-complaint-to-doj-voting-rights-violations-in-queens-city-council-district.

^{9.} *Id*.

Such lack of representation can be remediated—and was. At the congressional level, New York State's 2012 map, imposed by a federal court, was drawn in a conscious effort to preserve Flushing and Bayside as a COI within one district: District 6 (**Figure 1**). That November, District 6 elected Grace Meng, New York State's first Asian American member of Congress. Representative

^{10.} See Affidavit of Professor Nathaniel Persily, J.D., Ph.D. at 1-3, 40, Favors v. Cuomo, No. 11-CV-5632, 2012 WL 928216 (E.D.N.Y. Mar. 12, 2012), 2012 WL 5382191 ("Proposed District 6 is contained wholly within Queens and unites many of Queens' Asian communities in a compact district.").

^{11.} About, CONGRESSWOMAN GRACE MENG, https://meng.house.gov/about (last visited Mar. 5, 2021); Catherine Thompson & Andrea Hilbert, New York's First Asian-American Congresswoman on Her 'Historic' House Victory, OBSERVER (Nov. 7, 2012, 5:30 AM), https://observer.com/2012/11/grace-meng-wants-her-victory-to-be-seen-as-a-milestone-for-reasons-other-than-race/.



Meng has advocated for issues of importance to her constituents. Following the rise in hate and violence against Asian Americans during early stages of the coronavirus pandemic, she introduced and helped pass a key bill and a House

resolution to combat hate crimes and to denounce anti-Asian sentiment.¹² She has also previously introduced the Teaching Asian Pacific American History Act, aimed at including Asian Pacific American history in K-12 education through testing standards and programming.¹³ Representative Meng exemplifies the positive political representation that results from drawing electoral districts to respect communities.

This Article seeks to advance the scholarship on defining and incorporating COIs in the redistricting process to push for fair representation nationwide. COIs are not a new concept; geographers, ¹⁴ political scientists, ¹⁵ and legal scholars ¹⁶ have theorized in past decades about the representational value of keeping communities together. More recently, amidst growing concerns around gerrymandering given demographic shifts and legal changes, academics are increasingly interested in using COIs as a pivotal mechanism to prevent political manipulation of the redistricting process. ¹⁷ For this reason, the concept of preserving "communities of interest" has taken on greater prominence in criteria for redistricting, whether specified by legislation or in courts. In this Article, we address the existing definitions of communities of interest, present an empirically driven approach to determining communities of interest, and offer a rigorous metric for the evaluation of a redistricting map's ability to represent those communities.

To appreciate the timely salience of COIs, it is important to understand the context of key challenges of the 2020 redistricting cycle. The Supreme Court's 2019 decision in Rucho v. Common Cause rendered partisan gerrymandering nonjusticiable in federal courts, 18 leaving the redistricting process more vulnerable to political manipulation. Furthermore, this is the first redistricting cycle without the preclearance protections of Section 5 of the Voting Rights Act (VRA).¹⁹ Even racial gerrymandering claims under Section 2 of the VRA may

^{12.} See Barbara Sprunt, Here's What the New Hate Crimes Law Aims to Do as Attacks Asian Americans Rise, NPR (updated May 20, 2021, 4:32 PM ET), https://www.npr.org/2021/05/20/998599775/biden-to-sign-the-covid-19-hate-crimes-bill-asanti-asian-american-attacks-rise; COVID-19 Hate Crimes Act, Pub. L. No. 117-13, 135 Stat. 265 (2021); H.R. Res. 908, 116th Cong. (2020).

^{13.} Teaching Asian Pacific American History Act, H.R. 8519, 116th Cong. (2020).

^{14.} See, e.g., Richard L. Morrill, Redistricting, Region and Representation, 6 Pol. GEOGRAPHY Q. 241, 251-53 (1987).

^{15.} See, e.g., Bernard Grofman, Criteria for Districting: A Social Science Perspective, 33 UCLA L. REV. 77, 90 (1985).

^{16.} See, e.g., James A. Gardner, One Person, One Vote and the Possibility of Political Community, 80 N.C. L. REV. 1237, 1241-46 (2002).

^{17.} See, e.g., Samuel S.-H. Wang, Richard F. Ober Jr. & Ben Williams, Laboratories of Democracy Reform: State Constitutions and Partisan Gerrymandering, 22 U. P.A. J. CONST. L. 203, 244-46, 245 n.195 (2019); Michael Li & Yurij Rudensky, Rethinking the Redistricting Toolbox, 62 How. L.J. 713, 732-34 (2019).

^{18. 139} S. Ct. 2484, 2506-07 (2019).

^{19.} See Shelby Cnty. v. Holder, 570 U.S. 529, 556-57 (2013); Voting Rights Act of 1965, Pub. L. No. 89-110, 79 Stat. 437 (codified as amended in scattered sections of 52 U.S.C.).

become harder to satisfy as federal courts turn increasingly hostile to this land-mark legislation. Shaw v. Reno has proved to be a viable route to policing racial gerrymandering, but its future is clouded by the prospect that the Supreme Court will adopt a race-blind baseline for redistricting. In such a legal land-scape, COIs hold particular importance as a form of direct input to hold legislators accountable and as a means of protecting representation that includes communities of color.

Despite their growing significance, however, COIs remain an under-researched area in redistricting law. The existing scholarly literature is often divided on questions of defining and identifying COIs, particularly in terms of objective and quantitative versus subjective and qualitative measures. We present a novel approach to COIs, uniting a theory of community-based political representation with a practical, technologically innovative methodology.

Part I of this Article provides an overview of the theory and application of communities of interest in the redistricting process. We argue for the centrality of COIs in fair political representation, a view that has gained traction among reformers and academics in recent years. At the same time, we illustrate the current shortcomings of the standard methods used to identify and apply COIs.

In Part II, we propose a new way to gather and use COIs in the form of a COI public mapping tool. We begin by demonstrating how such a tool can push forward an empirically driven measure to identify COIs and improve the processes of public input and litigation. Then, we review the specific features a COI platform must include to be most effective. Finally, we propose two quantitative COI-splitting metrics and apply them to real-world data, offering a rigorous standard for assessing the preservation of COIs.

I. THE CURRENT LANDSCAPE OF COMMUNITIES OF INTEREST

A. Theory and importance of communities of interest

The preservation of communities of interest has become a critical consideration for fair redistricting. While there are varying definitions across states, a COI essentially refers to a group of people with common concerns.²³ COIs are often recognized in state constitutions and can be given the force of federal law

^{20.} See Brnovich v. Democratic Nat'l Comm., 141 S. Ct. 2321, 2330 (2021). Although Brnovich did not adopt a test for Section 2 challenges that would directly apply to redistricting, the Court's decision signals a further weakening of the VRA.

^{21.} See 509 U.S. 630, 657-58 (1993). This route is viable in situations when the gerry-mandering has involved packing of minority voters by picking up discrete pockets of minorities and adding them to districts that already were almost certain to elect a minority candidate of choice.

^{22.} Jowei Chen & Nicholas O. Stephanopoulos, *The Race-Blind Future of Voting Rights*, 130 YALE L.J. 862, 864-65, 875-76 (2021).

^{23.} See infra Part I.B.

by an act of Congress. A broadly comprehensive federal definition of COIs was proposed in the Freedom to Vote Act, an omnibus election law and democracy reform bill introduced in September 2021:

A community of interest is defined as an area for which the record before the entity responsible for developing and adopting the redistricting plan demonstrates the existence of broadly shared interests and representational needs, including shared interests and representational needs rooted in common ethnic, racial, economic, Indian, social, cultural, geographic, or historic identities, or arising from similar socioeconomic conditions. The term communities of interest may, if the record warrants, include political subdivisions such as counties, municipalities, Indian lands, or school districts, but shall not include common relationships with political parties or political candidates.²⁴

Drawing districts to respect COIs is key to effective political representation for individuals and the groups to which they belong, allowing for greater protection of identifiable common interests. Before assessing the current state of COIs from a practical perspective, it is helpful to examine the fundamental reasons why COIs should be considered in the first place.

Professor Nicholas Stephanopoulos, a leading expert on election law at Harvard Law School, has written about the conceptual importance of "territorial communities," his term for spatially bounded COIs.²⁵ In outlining the theoretical underpinnings that justify preserving territorial communities as a standard for redistricting, Professor Stephanopoulos argues that "communities arise along geographic lines and should be represented in the legislature."²⁶ His first tenet is that geography does indeed hold subjective and objective relevance in identifying meaningful communities; people generally *feel* connected to those who live in the same area, and they often *are* connected, for instance, by socioeconomic status, cultural values, or local industries.²⁷ This representational theory thus lies in the political significance of these communities, which in turn legitimates them as a basis for redistricting.²⁸

^{24.} Freedom to Vote Act, S. 2747, 117th Cong. § 5003(b)(4)(A) (2021). This is the most recent of a series of voting reform bills proposed by Congressional Democrats, including the For the People Act of 2019, H.R. 1, 116th Cong. (2019), and the John R. Lewis Voting Rights Advancement Act of 2021, H.R. 4, 117th Cong. (2021). See Fact Sheet: The Freedom to Vote Act, Brenan Ctr. for Just., https://www.brenancenter.org/our-work/research-reports/freedom-vote-act (last visited Nov. 3, 2021); Peter Overby, House Democrats Introduce Anti-Corruption Bill as Symbolic 1st Act, NPR (Jan. 5, 2019, 7:01 AM ET), https://www.npr.org/2019/01/05/682286587/house-democrats-introduce-anti-corruption-bill-as-symbolic-first-act; Savannah Behrmann, Republicans Block John Lewis Voting Rights Act in Senate Vote; USA Today (updated Nov. 3, 2021, 3:34 PM ET), https://www.usato-day.com/story/news/politics/2021/11/03/john-lewis-senate-democrats-push-vote-election-reform-bill/6240611001/.

^{25.} See Nicholas O. Stephanopoulos, Redistricting and the Territorial Community, 160 U. Pa. L. Rev. 1379, 1431-32 (2012).

^{26.} Id. at 1390.

^{27.} Id. at 1390-91.

^{28.} Id. at 1391.

Establishing districts around COIs facilitates the political process for both elected representatives and their constituents. From the representative's perspective, "[t]he rationale for giving due weight to clear communities of interest is that '[t]o be an effective representative, a legislator must represent a district that has a reasonable homogeneity of needs and interests; otherwise the policies he supports will not represent the preferences of most of his constituents.""²⁹ On the constituent side, COI-based districts encourage greater civic participation, as voters better understand and identify with districts that align with preexisting local networks and shared affiliations. ³⁰ Keeping communities together yields greater political representation of common interests and concerns.

In addition to the inherent benefits of community-based districts, preserving COIs also indirectly prevents political gerrymandering. Requiring map drawers to respect community boundaries decreases their latitude to skew districts in favor of a political party or incumbent by splitting (cracking) a community.³¹ In this way, COIs act as a limit on gerrymandering by constraining the range of valid maps and making it more difficult to maximize unfair advantages. COIs also present an alternative route to protecting communities of color with clear socioeconomic or cultural commonalities.³²

Given their potential value and existing legal status, COIs have elicited renewed interest across states as a key path forward in the changing landscape of redistricting. In 2014, eighteen civil rights and democracy organizations endorsed a set of ten baseline redistricting principles, of which one stated: "Consideration of communities of interest is essential to successful redistricting. Maintaining communities of interest intact in redistricting maps should be second only to compliance with the United States Constitution and the federal Voting Rights Act as a consideration in redistricting." COIs have also gained increasing acknowledgement and prominence on a national level. Federal courts have repeatedly taken COIs into account when imposing redrawn redistricting plans on states. The Freedom to Vote Act's inclusion of protection for COIs

^{29.} Maestas v. Hall, 274 P.3d 66, 78 (N.M. 2012) (quoting Prosser v. Elections Bd., 793 F. Supp. 859, 863 (W.D. Wis. 1992)).

^{30.} See Nicholas O. Stephanopoulos, Spatial Diversity, 125 HARV. L. REV. 1903, 1917-19 (2012) (outlining scholarly arguments and empirical evidence for greater levels of voter engagement in more homogeneous districts).

^{31.} See Karin Mac Donald & Bruce E. Cain, Community of Interest Methodology and Public Testimony, 3 U.C. IRVINE L. REV. 609, 613 (2013).

^{32.} For a discussion on why appeals to traditional race-based remedies will be more difficult given changing demographics, the weakening of the Voting Rights Act, and the direction of federal courts, see Li & Rudensky, *supra* note 17, at 715-26.

^{33.} COMMON CAUSE, REDISTRICTING PRINCIPLES FOR A MORE PERFECT UNION (2014), https://www.commoncause.org/wp-content/uploads/2020/11/Redistricting-Principles-FINAL-with-endorsers.pdf.

^{34.} See, e.g., Dillard v. City of Greensboro, 946 F. Supp. 946, 952 (M.D. Ala. 1996); Larios v. Cox, 314 F. Supp. 2d 1357, 1360 (N.D. Ga. 2004) (per curiam); Toerner v. Cameron Par. Police Jury, No. 11 CV1302, 2011 WL 3584786, at *7 (W.D. La. Aug. 15, 2011); Motion to Dismiss at 4, Greig v. City of St. Martinville, No. 2000cv00603 (W.D. La. Sept. 28, 2001),

over more traditional criteria like contiguity and compactness indicates the growing centrality of COIs to fair redistricting.³⁵

B. Current community of interest state provisions

COI provisions in each state vary significantly in their specificity and scope. To date, thirty-seven states include formal requirements for the preservation of COIs in redistricting, enacted in state constitutions, statutes, legislative committee guidelines, or court orders.³⁶ Such provisions have become increasingly common of late; indeed, redistricting reforms in recent years have often included COI provisions, as seen in Colorado, Michigan, Utah, and Virginia.³⁷

Roughly half of the thirty-seven states with COI requirements leave the term undefined.³⁸ Of the states that do offer a definition, some are specific and limited, such as the Alaska Constitution's criterion of "relatively integrated socio-economic area[s]."39 Others are much more expansive, such as Alabama's legislative guidelines, which recognize COIs based in "an area with recognized similarities of interests, including but not limited to ethnic, racial, economic, tribal, social, geographic, or historical identities," and that "may, in certain circumstances, include political subdivisions such as counties, voting precincts, municipalities, tribal lands and reservations, or school districts."40

2001 WL 34895961; Rodriguez v. Pataki, No. 02 Civ. 618, 2002 WL 1058054, at *6 (S.D.N.Y. May 24, 2002); Smith v. Hosemann, 852 F. Supp. 2d 757, 765-66 (S.D. Miss.

- 35. Freedom to Vote Act, S. 2747, 117th Cong. § 5003(b)(4)(A) (2021).
- 36. See Wang, Ober Jr. & Williams, supra note 17, at 245 n.195 (2019); see also infra Appendix A. This represents a significant increase in recent decades. In 1985, only four state constitutions contained explicit provisions about preserving COIs. Bernard Grofman, Criteria for Districting: A Social Science Perspective, 33 UCLA L. REV. 77, 177-83 tbl.3 (1985).
- 37. See COLO. CONST. art. V, §§ 44.3(2)(a), 48.1(2)(a) ("As much as is reasonably possible, the commission's plan must preserve whole communities of interest "); MICH. CONST. art. IV, § 6(13)(c) ("Districts shall reflect the state's diverse population and communities of interest."); UTAH CODE ANN. § 20A-20-302(5) (West 2021) ("The commission shall define and adopt redistricting standards for use by the commission that require that maps adopted by the commission, to the extent practicable, comply with the following, as defined by the commission: (a) preserving communities of interest . . . "); VA. CODE ANN. § 24.2-304.04(5) (2021) ("Districts shall be drawn to preserve communities of interest.").
- 38. See, e.g., ARIZ. CONST. art. IV, pt. II, § 1(14)(D) ("District boundaries shall respect communities of interest to the extent practicable "); N.Y. CONST. art. III, § 4(c)(5) ("The commission shall consider . . . communities of interest.").
 - 39. Alaska Const. art. VI. § 6.
- 40. PERMANENT LEGIS. COMM. ON REAPPORTIONMENT, REAPPORTIONMENT COMMITTEE REDISTRICTING GUIDELINES (Ala. 2021), http://www.legislature.state.al.us/aliswww/reapportionment/Reapportionment%20Guidelines%20for%20Redistricting.pdf.

Meanwhile, states such as California, Michigan, and Virginia explicitly prohibit the consideration of political or partisan interests in identifying COIs.⁴¹ Finally, some states go further in specifying concrete examples of COIs;⁴² one of the most extensive lists can be found in the Colorado Supreme Court case *Hall v. Moreno*, which identified COIs based around national parks, state universities, military bases, and other features.⁴³

States give differing levels of consideration and priority to COIs; for example, California places a heavy emphasis on preserving COIs, ranking the criterion fourth, only below the federal requirements of equal population, compliance with the VRA, and basic measures of contiguity.⁴⁴ On the other hand, some states only protect COIs after all other criteria are met.⁴⁵

The thirteen states which have not yet adopted official COI criteria may still have the option to consider COIs in the redistricting process. Without passing a statute or amending the state constitution, COIs can be adopted by legislative committee guidelines, as is the case in ten states, or through court decisions, as has occurred in six states. ⁴⁶ Furthermore, COIs have been recognized as a traditional redistricting criterion by the U.S. Supreme Court in no fewer than nine decisions since 1995. ⁴⁷ Citizens have solid ground on which to advocate for COIs

^{41.} CAL. CONST. art. XXI, § 2(d)(4) ("Communities of interest shall not include relationships with political parties, incumbents, or political candidates."); MICH. CONST. art. IV, § 6(13)(c) ("Communities of interest do not include relationships with political parties, incumbents, or political candidates."); VA. CODE ANN. § 24.2-304.04(5) (2021) ("A 'community of interest' does not include a community based upon political affiliation or relationship with a political party, elected official, or candidate for office.").

^{42.} See, e.g., CAL. CONST. art. XXI, § 2(d)(4) ("[A]reas in which the people share similar living standards, use the same transportation facilities, have similar work opportunities, or have access to the same media of communication relevant to the election process."); COLO. CONST. art. V, § 46(3)(b)(II)(B) ("Shared public policy concerns such as education, employment, environment, public health, transportation, water needs and supplies").

^{43. 270} P.3d 961, 975-80 (Colo. 2012). This case defined highly specific communities, including the Rocky Flats radioactive cleanup area, the I-70 corridor, Rocky Mountain National Park, and the pine bark beetle kill infestation. *Id*.

^{44.} See Nicholas O. Stephanopoulos, Communities and the California Commission, 23 STAN. L. & POL'Y REV. 281, 282 (2012) ("[T]he California Constitution is unique in the premium that it now places on subdivision and community preservation. It is unique in clearly prioritizing this criterion—aimed at making districts more coherent and thus improving voter participation and the quality of representation—over values such as compactness, competition, and partisan fairness."); CAL. CONST. art. XXI, § 2(d)(1)-(4).

^{45.} See, e.g., Order Stating Redistricting Principles and Requirements for Plan Submissions at 6, 9, Hippert v. Ritchie, 813 N.W.2d 374 (Minn. Special Redistricting Panel 2012) (No. A11-152) ("Where possible in compliance with the preceding principles, communities of interest shall be preserved."); INTERIM J. COMM. ON STATE GOV'T'S REDISTRICTING SUBCOMM., CRITERIA/STANDARDS FOR CONGRESSIONAL REDISTRICTING (Ky. 1991) ("Where possible, congressional districts should attempt to preserve communities of interest where such efforts do not violate the other stated criteria.").

^{46.} See infra Appendices A & B; see also Wang, Ober Jr. & Williams, supra note 17, at 245 n.195.

^{47.} See Miller v. Johnson, 515 U.S. 900, 916 (1995); Bush v. Vera, 517 U.S. 952, 977

in the public input process, regardless of state requirements. Moreover, where it does not contradict state or federal law, those with the power to draw the maps can choose to acknowledge and account for COIs as an important criterion.

It is necessary to acknowledge that in all states, COIs can at most serve as one of several important redistricting provisions. There are always trade-offs between different fairness standards, and no single criterion is a redistricting panacea.⁴⁸ COIs can and have come into conflict with other traditional criteria like equal population,⁴⁹ compactness,⁵⁰ and competitiveness.⁵¹ The goal should not be to maximize any one criterion. Rather, all redistricting provisions, including COIs, can serve as individual means to the end of achieving fair political representation.

C. Standard measures of communities of interest

The varying legal requirements between states highlight the difficulty of defining COIs. Thus far, there have been a handful of standard—yet ultimately unsatisfactory—methods of objectively measuring COIs.

First, COIs may be identified using existing government subdivisions and designations. From a historical perspective, political subunits served as the original COIs, based on the rationale that residents who share a place of residence and a local government naturally share a variety of interests.⁵² For large-scale

(1996) (plurality opinion); Abrams v. Johnson, 521 U.S. 74, 92, 99-100 (1997); Hunt v. Cromartie, 526 U.S. 541, 555-56 n.1 (1999) (Stevens, J., concurring in the judgment); Vieth v. Jubelirer, 541 U.S. 267, 360-61 (2004) (Breyer, J., dissenting); League of United Latin Am. Citizens v. Perry, 548 U.S. 399, 433 (2006); Evenwel v. Abbott, 136 S. Ct. 1120, 1124, 1132-33 n.15 (2016); Bethune-Hill v. Va. State Bd. of Elections, 137 S. Ct. 788, 795 (2017); Rucho v. Common Cause, 139 S. Ct. 2484, 2500 (2019).

- 48. See Grofman, supra note 15, at 124 ("[Redistricting] involves the need to reconcile multiple and conflicting desirable social goals not all of which can simultaneously be achieved ").
- 49. See Bruce E. Cain, Karin Mac Donald & Michael McDonald, From Equality to Fairness: The Path of Political Reform Since Baker v. Carr, in PARTY LINES: COMPETITION, PARTISANSHIP, AND CONGRESSIONAL REDISTRICTING 6, 8 (Thomas E. Mann & Bruce E. Cain eds., 2005) ("The equal population criterion inevitably wreaked havoc on geographic representation since in many instances homogeneous communities of interest had to be split or combined in order to achieve population equality").
- 50. See Nathaniel Persily, When Judges Carve Democracies: A Primer on Court-Drawn Redistricting Plans, 73 GEO. WASH. L. REV. 1131, 1158 (2005) (describing how compact districts can actually group unrelated communities). Therefore districts based on local constituencies may be less compact.
- 51. See James G. Gimpel & Laurel Harbridge-Yong, Conflicting Goals of Redistricting: Do Districts That Maximize Competition Reckon with Communities of Interest?, 19 Election L.J. 451, 454-55 (2020) (explaining the irreconcilable tensions between COIs and competitiveness, as COIs often share political interests and lead to heavily partisan districts).
- 52. See James A. Gardner, What Is "Fair" Partisan Representation, and How Can It Be Constitutionalized? The Case for A Return to Fixed Election Districts, 90 MARQ. L. REV. 555, 584 (2007) ("[C]ommon residency in a working, functioning, self-governing locality by itself can give rise to a political and administrative community of interest entitled to recognition.").

constituencies, such as congressional districts, political subunits like counties and cities can serve as the functional equivalent of COIs.⁵³ For smaller constituencies, such as city council districts or county supervisorial districts, COIs may be defined using geographic areas accorded special designations by local governments. These may include formally recognized ethnic places, such as Koreatown or Little India, and neighborhoods with long-standing continuity, such as Chicago's community areas.⁵⁴ However, the degree to which residents identify with county and neighborhood units often varies, and preexisting government lines do not necessarily reflect meaningful communities.⁵⁵ Moreover, as preserving political subdivisions is often its own distinct redistricting criterion, recognized in thirty-three state constitutions, local government units will not be considered further in this Article.⁵⁶

Another traditional way of defining COIs is to solely consider race and ethnicity. Race is implicated in many issues surrounding redistricting, and it is particularly central to COIs.⁵⁷ Race-based COIs permit shared racial identities to create salient communities due to collective societal and political forces, irrespective of geography and other factors.⁵⁸ As Justice Ruth Bader Ginsburg noted, "ethnicity itself can tie people together"⁵⁹ In the 1990s, the Department of Justice adopted this racial COI rationale to maximize majority-minority districts under the VRA.⁶⁰ However, the Supreme Court largely rejected this approach,

^{53.} See In re Reapportionment of the Colo. Gen. Assembly, 45 P.3d 1237, 1248 (Colo. 2002) ("Counties and the cities within their boundaries are already established as communities of interest in their own right, with a functioning legal and physical local government identity on behalf of citizens that is ongoing.").

^{54.} *See*, *e.g.*, Moon Young Choi, Putting Ethnicity on the Map: The Making, Contesting, and Assessing of Claims for the Formal Recognition of Ethnic Places 12-13, 27 (2014) (Ph.D. dissertation, University of California, Irvine), https://escholarship.org/uc/item/97h1613m.

^{55.} For example, Arab-Americans in greater Detroit are spread across parts of Dearborn, Detroit, and Hamtramck, and city boundaries do not capture what is otherwise a cohesive community. *See* Anna Billingsley et al., Woodrow Wilson Sch. of Pub. & Int'l Affs., Princeton Univ., A Commissioner's Guide to Redistricting in Michigan 40 (2019).

^{56.} See infra Appendix A; see also Wang, Ober Jr. & Williams, supra note 17, at 242.

^{57.} See Justin Mark Levitt, Introducing "Clustering:" Redistricting in Geographic Perspective 38 (2016) (Ph.D. dissertation, University of California, San Diego), https://escholarship.org/uc/item/4689t4s6 ("While, broadly speaking, communities of interest can encompass any group of people linked by common bonds, in the United States, it almost always refers to race, and the use of race as a criteria in districting.").

^{58.} See Lisa A. Kelly, Race and Place: Geographic and Transcendent Community in the Post-Shaw Era, 49 VAND. L. REV. 227, 234 (1996) ("[T]he importance of race also transcends place, creating a community that has little to do with geography but everything to do with the larger political and cultural community of color.").

^{59.} Miller v. Johnson, 515 U.S. 900, 944 (1995) (Ginsburg, J., dissenting).

^{60.} See Jonathan I. Leib, Communities of Interest and Minority Districting After Miller v. Johnson, 17 Pol. Geography 683, 688 (1998) ("The DOJ's maximization of majority-minority districts in the redistrictings of the early 1990s demonstrated a conception of community of interest defined solely in racial and ethnic terms; that is members of the same racial or ethnic group constitute a community of interest that transcends space as a result of the

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striking down such districts as unconstitutional racial gerrymanders where race was the predominant factor in drawing lines.⁶¹ Furthermore, using racial data alone can obscure intragroup differences as well as cross-racial similarities. Communities that fall under a common race category may in fact have significant conflicts and divergent needs. 62 Meanwhile, different racial groups may form coalitions to represent common interests.63

Finally, a technical method of measuring COIs is available through statistical clustering. Analysis of demographic data, most commonly from the Census Bureau, can reveal clusters of individuals with common traits and interests which may constitute COIs.⁶⁴ Professor Stephanopoulos has used a statistical procedure called factor analysis to operationalize his theory of territorial communities. 65 In brief, he analyzed variables from the American Community Survey (ACS) and election results on popular initiatives to assess California's 2010 redistricting plans for spatial homogeneity—a measure that points to the adherence of districts to COIs. 66 Other scholars have also performed geodemographic analyses of Census and ACS variables that can serve to identify natural clusters of COIs.⁶⁷ One

group's shared history, culture, sense of group identity, legacy of discrimination and segregation.").

- 61. See Miller, 515 U.S. at 927; Bush v. Vera, 517 U.S. 952, 975-76 (1996) (plurality opinion); Shaw v. Hunt, 517 U.S. 899, 918 (1996).
- 62. For example, Dearborn, Michigan has a significant Arab-American population—for which the Census does not even have a race category—where the Yemeni and Lebanese communities have a history of division and discrimination and exhibit differences in educational outcomes and religious practices. See, e.g., Hassan Khalifeh, Local Yemenis Feel Marginalized as Lebanese Brethren Gain Momentum, ARAB AM. NEWS (July 7, 2017, 4:55 AM), https://www.arabamericannews.com/2017/07/local-yemenis-feel-marginalized-as-lebanese-brethren-gain-momentum/.
- 63. For example, Chinese immigrants in Manhattan's Chinatown and Latino immigrants in the Lower East Side achieved common goals when placed in the same City Council district. See Margaret Fung, New York Forum About Politics: A District Like a Mosaic, NEWSDAY (N.Y.), Apr. 12, 1991, at 60 ("Working-class Asians and Latinos in this area have successfully united in the past to win affordable housing, health care, immigrant services, and bilingual education."); see also Glenn D. Magpantay, A Shield Becomes a Sword: Defining and Deploying a Constitutional Theory for Communities of Interest in Political Redistricting, 25 Barry L. REV., Spring 2020, at 1, 18; Benjamin Forest, Mapping Democracy: Racial Identity and the Quandary of Political Representation, 91 Annals Ass'n Am. Geographers 143, 160 (2001) ("[S]ome geographers have advocated the creation of multi-ethnic 'influence districts' in which ethnic and racial minorities can form coalitions to advance common interests.").
- 64. See Stephen J. Malone, Note, Recognizing Communities of Interest in a Legislative Apportionment Plan, 83 VA. L. REV. 461, 480 (1997) ("Census data on population density, race, national origin, income, education, ancestry, occupation, religion and household size can point to commonalities within the population that may indicate the existence of a community of interest.").
 - 65. See Stephanopoulos, supra note 44, at 289-93.
 - 66. Id. at 283.
- 67. See, e.g., Kalyn M. Rossiter, David W. S. Wong & Paul L. Delamater, Congressional Redistricting: Keeping Communities Together?, 70 Pro. GEOGRAPHER 609, 614 (2018) (outlining the use of cluster analysis to group 2010 Census block groups together based on variables such as median age, percentage renters, and race and ethnicity, as the basis for defining

quantitative metric has been suggested that relies on infrastructure, physical features, and administrative boundaries to define communities.⁶⁸ However, some have warned against relying too heavily on quantitative data, which serve as incomplete proxies for possible communities, and losing sight of the actual qualitative interests that COIs are meant to protect.⁶⁹

D. Previous applications of communities of interest

In addition to the pitfalls of existing approaches to identifying COIs, there are also major concerns with the ways in which COIs have previously been applied in the redistricting process. Evidence and arguments on COIs can be presented at two stages: (1) before plans have been finalized, during the map-drawing period; and (2) after plans have been drawn, during litigation.

During the map-drawing period, COIs can be introduced into the redistricting process through public input. Currently, twenty-six states legally mandate some form of citizen participation in redistricting, such as public hearings, public comment, and public map submissions. To Even in states without legal requirements, nearly all held at least one public hearing in the last redistricting cycle following the 2010 Census. Through these avenues of public input, citizens can appeal to redistricting authorities to preserve COIs. The most extensive public input process with a heavy emphasis on COIs took place in California. In total, the California Citizens Redistricting Commission gathered over 14,000 public

COIs); Seth E. Spielman & Alex Singleton, Studying Neighborhoods Using Uncertain Data from the American Community Survey: A Contextual Approach, 105 ANNALS ASS'N AM. GEOGRAPHERS 1003, 1011-22 (2015) (classifying each tract in the conterminous United States and conducting tract-level analysis of 136 ACS variables); Daniel W. Phillips & Daniel R. Montello, Defining the Community of Interest as Thematic and Cognitive Regions, 61 Pol. GEOGRAPHY 31, 32-35 (2017) (using Spielman & Singleton's classification scheme to group contiguous tracts of the same class into clusters representing COIs).

- 68. See How Well Do District Boundaries Reflect Natural Communities?, ESRI, https://www.arcgis.com/apps/Cascade/index.html?appid=1e5f6e98c8df47f1abd2709fd2406fba (last visited Mar. 4, 2021).
- 69. See Mac Donald & Cain, supra note 31, at 612 ("The 'interest' in a COI is not merely a clustering of some measurable social or economic characteristic. Residents in that area have to perceive and acknowledge that a social, cultural, or economic interest is politically relevant. COI geography is ultimately subjective as well.").
- 70. See Public Input and Redistricting, NAT'L CONF. OF STATE LEGISLATURES (Sept. 9, 2019) https://www.ncsl.org/research/redistricting/public-input-and-redistricting.aspx#/.
- 71. Based on the Authors' reviews of state government websites and local newspapers, at least forty-seven states held one or more public hearings in the redistricting cycle after the 2010 Census.
- 72. For a detailed overview of the public testimony process in California in 2011, see Mac Donald & Cain, *supra* note 31, at 623-28. For an overview of the extensiveness of the California process, see Peter Miller & Bernard Grofman, *Public Hearings and Congressional Redistricting: Evidence from the Western United States 2011-2012*, 17 ELECTION L.J. 21, 27-28 (2018).

comments, of which more than half explicitly addressed COIs.⁷³

A principal difficulty in handling public comments is how to organize a high volume of citizen input. Staff and consultants in California faced significant challenges in making public input data usable for the Commission and incurred high monetary and temporal costs. ⁷⁴ Participation costs can become a barrier of entry, leaving public hearings prone to selectivity bias that favors those who have the resources to participate, including special interest groups. ⁷⁵ Thus, while the formidable efforts in California to gather COI input did appear to bring about better maps, ⁷⁶ the various pitfalls that arose during the process hint towards the difficulty of replicating such a model of public testimony.

After redistricting maps are passed, COIs can again be invoked, this time during litigation. The aforementioned COI provisions in various states provide the basis for legal arguments in court. Courts often take COIs into account when assessing the constitutionality of challenged district plans.⁷⁷ However, some courts have rejected consideration of COIs due to the lack of a clear, articulable standard. For example, a Maryland court dismissed the criterion as "nebulous and unworkable,"⁷⁸ and a Pennsylvania court declared communities "too elastic and amorphous."⁷⁹ In the absence of a concrete definition, arguments based on COIs can often be offered as pretext, providing a post hoc justification for challenged districts.⁸⁰

^{73.} *See id.* at 626-28 (specifying 2,365 comments in the public hearing database, 1,385 of which addressed COIs, and 12,425 records of written comments, 7,138 of which addressed COIs).

^{74.} See id. at 615-16, 627 ("CRC staff also had tremendous problems keeping the submissions organized and getting them to the consultants in a timely manner or at all. Consultants had to sift through dozens of folders that contained duplicate submissions, had the wrong file names attached, and were not properly redacted. Three separate quality control processes by consultants to randomly check the public input sent to them for coding against what was posted on the website showed discrepancies.").

^{75.} Id. at 615-16, 616 n.28.

^{76.} See Stephanopoulos, supra note 44, at 293-94 (describing empirical findings that California's new 2011 districts more closely correspond to geographical communities than the prior plan, though they could have been better still).

^{77.} For a curation of all relevant case law, see Appendix B below.

^{78.} *In re* Legislative Districting of State, 475 A.2d 428, 445 (Md. 1984) ("The provision does not, in our view, encompass protection for a concept as nebulous and unworkable as 'communities of interest,' involving as it does concentrations of people sharing common interests. We think it apparent that the number of such communities is virtually unlimited and no reasonable standard could possibly be devised to afford them recognition in the formulation of districts within the required constitutional framework.").

^{79.} Albert v. 2001 Legis. Reapportionment Comm'n, 790 A.2d 989, 999 (Pa. 2002) ("The appellants urge us to consider the 'homogeneity' and 'shared interests' of a community as guidelines. We believe that these concepts are too elastic and amorphous, however, to serve as a judicial standard for assessing the reapportionment process.").

^{80.} Affidavit of Professor Nathaniel Persily, J.D., Ph.D., *supra* note 10, at 18 ("[A]rguments based on communities of interest can often be pretexts for incumbency or partisan-related considerations.").

Notably, appeals to COIs commonly arise in the context of racial gerrymandering. The Supreme Court first recognized the concept of COIs in the 1995 case Miller v. Johnson, but rejected the state's "mere recitation of purported communities of interest," finding that the Black population in Georgia's majority-minority district was in reality defined not by commonality, but by "fractured political, social, and economic interests."81 The following year, the Court dismissed COI-based arguments twice more in striking down majority-minority districts, citing concerns that in Texas, the legislature "compiled detailed racial data for use in redistricting, but made no apparent attempt to compile, and did not refer specifically to, equivalent data regarding communities of interest,"82 and that in North Carolina, "respecting communities of interest . . . came into play only after the race-based decision had been made [by the legislature]."83 Lower courts have also rejected appeals to COIs as pretexts for racially motivated redistricting.84 These decisions reveal that a common weakness for COIs is their post hoc appearance, as comprehensive and rigorous data on COIs have not generally been collected during the map-drawing process.

II. A PATH FORWARD FOR COMMUNITIES OF INTEREST USING TECHNOLOGY AND MATHEMATICAL ANALYSIS

Given the value of COIs in promoting fair representation for individuals and their communities, it is important to ensure that they are used effectively in the redistricting process. As it stands, the current methods of measuring and identifying COIs fall short, and previous applications of COIs through public input and litigation have also raised concerns. We propose a new path forward for COIs in two parts: first, a dedicated mapping tool for the collection of COIs, and second, a metric for the evaluation of maps based on the COIs thus collected.

Technology has changed the dynamic between citizens and redistricting. Over the last two decades, a key development in redistricting has been the advent of software-based citizen mapping tools. First emerging in the mid-2000s, these technologies have made it possible for citizens to actively participate in the map-

^{81. 515} U.S. 900, 919 (1995).

^{82.} Bush v. Vera, 517 U.S. 952, 967 (1996) (plurality opinion).

^{83.} Shaw v. Hunt, 517 U.S. 899, 907 (1996).

^{84.} See, e.g., Kelley v. Bennett, 96 F. Supp. 2d 1301, 1321 (M.D. Ala.) ("[T]he evidence in this case does not show that protecting communities of interest prevailed over race"), vacated sub nom. Sinkfield v. Kelley, 531 U.S. 28 (2000); Diaz v. Silver, 978 F. Supp. 96, 124-25 (E.D.N.Y.) ("[C]ommunities of interest were not as important as race in the referees' redistricting."), aff d mem., 522 U.S. 801 (1997); Seamon v. Upham, 536 F. Supp. 931, 1012 (E.D. Tex.) (Justice, C.J., concurring in part and dissenting in part) ("The record does not contain any indication whatever as to the existence of compelling communities of interest"), vacated, 456 U.S. 37 (1982) (per curiam).

drawing process.⁸⁵ Free tools—like Dave's Redistricting,⁸⁶ DistrictBuilder,⁸⁷ and Districtr⁸⁸—as well as professional software—like Maptitude for Redistricting⁸⁹ and Esri Redistricting⁹⁰—allow interested individuals to draw their own district maps, which they can then submit to the legislature or redistricting commission as public input or to courts as evidence.⁹¹

The promulgation of such tools demonstrates the pivotal role technology can play in democratizing redistricting. However, these district-mapping tools have two problems. First, it is still difficult for the public to access such tools. Drawing a redistricting plan requires a high degree of technical expertise and domain-specific knowledge. The same features that render redistricting software powerful, such as the ability to conduct geospatial analyses or evaluate detailed election and demographic statistics, can also make the software confusing to navigate. Second, the average citizen is unlikely to be familiar with political geography across an entire state. He or she may be primarily interested not in a statewide map, but in specific issues relating to fair representation where they live—in short, their community of interest.

A technology platform dedicated to drawing COIs, rather than full district plans, would capitalize on the benefits of existing redistricting technologies while bypassing current barriers to entry. An online COI-mapping tool can engage a wider audience by prioritizing accessibility and ease of use, with the opportunity to educate community members on the redistricting process and the importance of COI representation. Ultimately, a COI platform allows individuals

^{85.} See Jeremy W. Crampton, *Political Applications of the Geoweb: Citizen Redistricting*, 45 ENV'T & PLANNING A: ECON. & SPACE 70, 72-75 (2013) (discussing the emergence of citizen redistricting tools, in particular DistrictBuilder, Dave's Redistricting App, and Esri Redistricting).

^{86.} DAVE'S REDISTRICTING, https://davesredistricting.org/maps#home (last visited Mar. 1, 2021).

^{87.} DISTRICTBUILDER, https://www.districtbuilder.org/ (last visited Mar. 1, 2021).

^{88.} DISTRICTR, https://districtr.org/ (last visited Mar. 1, 2021).

^{89.} Maptitude Mapping Software, CALIPER, https://www.caliper.com/maptovu.htm (last visited Mar. 1, 2021).

^{90.} *Esri Redistricting*, Esri, https://www.esri.com/en-us/arcgis/products/esri-redistricting/overview (last visited Mar. 1, 2021).

^{91.} One example of a citizen who leveraged redistricting software to push for reform is Amanda Holt, a piano teacher from Pennsylvania. In 2011, she used Dave's Redistricting App to draw district maps in fuller compliance with the state's constitutional requirements. Ultimately, her maps influenced the Pennsylvania Supreme Court to strike down the legislature's gerrymandered plans. *See* MICHAEL P. MCDONALD & MICHAEL ALTMAN, THE PUBLIC MAPPING PROJECT: HOW PUBLIC PARTICIPATION CAN REVOLUTIONIZE REDISTRICTING 77 (2018).

^{92.} Wayne Hanson, *The Rise of Do-It-Yourself Redistricting*, GOV'T TECH. (Feb. 3, 2011), https://www.govtech.com/dc/articles/The-Rise-of-Do-It-Yourself-Redistricting.html ("Redistricting, after all, is a not just a political process but also a very technical one, requiring map makers to consider everything from a district's compactness to the Supreme Court's latest interpretation of the Voting Rights Act.").

^{93.} *See* Crampton, *supra* note 85, at 74-75 (describing Esri Redistricting's functionalities and its inaccessibility to the average citizen).

to delineate their own geographical communities in a standardized and integrated way, ensuring that a wide variety of COIs are readily available for consideration in the redistricting process.

A. An empirically driven measure of communities of interest

A COI public mapping tool would support and advance an empirically driven method of measuring COIs that relies on the complex perceptions of community members themselves, rather than limited, objective indicators. Using such a tool, individuals themselves can draw the boundaries of the COIs with which they identify. The idea of self-defined COIs is not novel. It reflects the cognizability principle: the ability of residents to cognize their district by being aware of the general configuration of its boundaries. His facilitates "identification of and with the district," which allows for better representation and greater civic participation. Defining COIs through the personal cognitive maps of community members ensures that the resulting COI-based districts are cognizable and meaningful to their constituents. Indeed, numerous scholars have emphasized the need for individuals to be at the center of defining their own COIs to ensure that districts are truly representative.

By focusing on the perceptions of the community itself, an empirically driven approach to identifying COIs can capture salient COIs that do not fall neatly into the current objective measures of racial categories or Census clusters. First, an empirical method of defining COIs can reveal nuanced distinctions or coalitions between racial and ethnic communities that are obscured by racial data alone. To avoid race essentialism, residents with firsthand experience and familiarity should be in charge of identifying their own communities. Similarly, a standard of COI definition centered on community perceptions improves upon statistical clustering by recognizing key qualitative interests not reflected in quantitative data. Communities that appear demographically similar may have

^{94.} See Bernard Grofman, Would Vince Lombardi Have Been Right if He Had Said: "When it Comes to Redistricting, Race Isn't Everything, It's the Only Thing"?, 14 CARDOZO L. REV. 1237, 1262-63 (1993).

^{95.} Id.

^{96.} *See* Phillips & Montello, *supra* note 67, at 32 (describing how individuals can define COIs using their own subjective cognitive maps).

^{97.} See, e.g., Todd Makse, Defining Communities of Interest in Redistricting Through Initiative Voting, 11 ELECTION L.J. 503, 506 (2012) ("In other words, voters should determine when geography matters, and when it is trumped by partisanship and ideology, economic interests, or socioeconomic and racial divisions."); Mac Donald & Cain, supra note 31, at 635 ("[W]e reject the idea that objective indicators, especially those derived from the ACS, are an adequate substitute for public testimony and we endorse the construction of COIs based on how residents perceive them").

^{98.} See supra notes 62-63 and accompanying text.

^{99.} See Mac Donald & Cain, supra note 31, at 611 ("First, purely quantitative measures of community of interest cannot supplant qualitative public testimony....[P]ublic testimony gives a better snapshot of what matters to voters, residents, and communities at a given time

significantly different policy concerns due to other external factors. 100 A community-led standard of defining COIs allows individuals to point out compelling interests that are not evident from general population data but nevertheless require attention from political representatives.

There have been a few previous attempts to apply the idea of self-identified COIs in the context of redistricting. In 2011, the Asian American Legal Defense and Education Fund (AALDEF) presented a federal court with maps of fifteen Asian American COIs in New York City "as defined by community groups and residents who live and work in those geographic areas." These maps were accompanied with a thorough description of each community's particular concerns and needs, such as lack of medical insurance, language assistance, and places of worship, that could not have been discerned without input from community members themselves. 102

Researchers Daniel Phillips and Daniel Montello also conducted a study in which they had participants identify COIs through their own subjective cognitive maps. ¹⁰³ They asked respondents to draw and fill in "bubbles" representing the boundaries of what they saw as their community of interest, which were then digitized and analyzed. ¹⁰⁴ The study produced mixed results on the effectiveness of such an approach; while the COIs drawn were sometimes larger than the city council districts and showed moderate consensus, the researchers concluded that the cognitive maps of individuals offer important insights and "should represent the core or center of whatever district is being crafted." ¹⁰⁵

These two research studies reveal valuable advantages of an empirically driven measure for COIs, but their methodologies are impractical to scale or replicate. Both rely on time-intensive processes of surveying and experimentation, with researchers individually meeting with community members. These constraints limit the scope of study to singular localities. A public mapping tool, on the other hand, can efficiently and effectively gather and analyze a wide array of

and place.").

^{100.} One striking example of the need for community input to delineate distinct COIs is in the case of San Fernando Valley and the Los Angeles Basin. While the two communities appear indistinguishable in ACS data given their demographic and socioeconomic similarities, residents testified to the California Commission that the Santa Monica Mountains between the two areas created a great physical divide, leading to the wildfire hazards and fire prevention interests on the Los Angeles Basin side not being present on the San Fernando Valley side. *Id.* at 632.

^{101.} Lee Intervenors' Submission to Magistrate Judge Roann Mann with Respect to Congressional Redistricting Pursuant to Order Dated Feb. 28, 2012, *supra* note 5, at 3-4. These maps were presented as Attachment A to the Lee Intervenors' February 2012 brief in *Favors v. Cuomo* and had been previously submitted to New York's Legislative Task Force on Demographic Research and Reapportionment (LATFOR) at a public hearing in Queens on September 7, 2011. *Id.*

^{102.} See id. at 4-6; ASIAN AM. LEGAL DEF. & EDUC. FUND, supra note 2, at 3, 8-10.

^{103.} Phillips & Montello, *supra* note 67, at 35.

^{104.} Id. at 35, 38.

^{105.} Id. at 40, 43-44.

community input, thus making a bottom-up approach to defining COIs feasible. In this way, a COI-mapping tool provides the necessary technical foundation to effectuate a comprehensive, community-centered measure of identifying COIs.

B. Improving the applications of communities of interest

A COI software tool would be extremely useful during the map-drawing process as well as litigation. By optimizing the public input process, it may be possible to forestall inequities when lines are first drawn, thus preventing the need for a lawsuit. The same COI data may also be archived for later use if litigation does arise, providing a well-documented record that the existence of a community was known, yet not respected when districts were drawn. In both cases, an effective COI platform can resolve the previously discussed pitfalls.

First, a COI-mapping tool streamlines and standardizes the public input process. Using a digital platform to gather COIs is cheaper, faster, more accessible, and more transparent than traditional public input processes. Online tools can also prioritize public accessibility by providing multiple languages, disability considerations, and mobile compatibility, ensuring that more of the public is able to get involved in the redistricting process. Moreover, a COI-mapping tool that outputs computer-readable maps makes it easier for redistricters to incorporate COIs while drawing maps in a consistent, systematized manner. ¹⁰⁶ If used throughout a jurisdiction, it can reduce concerns around vague and incomplete public input, allowing map drawers to clearly identify meaningful COIs in areas with which they may not otherwise be familiar. ¹⁰⁷

Furthermore, a COI-mapping tool provides the basis for objective evaluation during litigation. A premade database of COI maps prevents map drawers from employing post hoc defenses in court. Indeed, courts have previously struck down plans purportedly drawn to respect COIs precisely because no such organized database was available during redistricting. A community-mapping tool

^{106.} In its guide to public hearings, the California Citizens Redistricting Commission stresses the benefit of actual maps of COIs beyond purely verbal testimony: "In addition, it is very helpful to provide the Commission with a map of where your community is located, including any landmarks or locations that are particularly important to your community." CAL. CITIZENS REDISTRICTING COMM'N, CALIFORNIA CITIZENS REDISTRICTING COMMISSION'S GUIDE TO REDISTRICTING AND THE PUBLIC INPUT HEARING PROCESS 7 (2011), https://wedrawthelines.ca.gov/wp-content/uploads/sites/64/2011/04/learnmore_20110419_guidebook.pdf.

^{107.} For an example of the problems that can arise when a map drawer draws COIs without being familiar with the area, see Perez v. Abbott, 253 F. Supp. 3d 864, 935 (W.D. Tex. 2017) (noting that the map drawer did not "know Forth Worth at all" and thus had to use maps shaded by the proportion of residents who were Black as a proxy to identify communities of interests).

^{108.} See Vera v. Richards, 861 F. Supp. 1304, 1338 (S.D. Tex. 1994) ("[T]here is no evidence that the information it [a demographic study about similarities in a community other than race] contains was available to the Legislature in any organized fashion"), aff'd sub nom. Bush v. Vera, 517 U.S. 952 (1996).

allows for the systematized collection and collation of COI data, dispelling criticisms that COIs are inherently nebulous or amorphous. By compiling clear and concrete COI coordinates prior to the map-drawing process, a mapping tool also limits the pretextual use of COIs to justify ulterior motives such as racial gerrymandering. Moreover, a database of standardized COIs can then be used by redistricters and courts alike to evaluate district plans for compliance with a legal requirement to respect communities of interest.

C. Features of a community of interest mapping tool

A COI-mapping tool is not merely a theoretical proposal; several such tools have already been developed. The California Citizens Redistricting Commission has created a state-specific tool that California residents can use to draw and submit COIs.¹⁰⁹ This tool arose to alleviate the aforementioned challenges faced by the Commission during the 2011 redistricting cycle. On a national level, there are currently three primary tools with COI-mapping functionality of which we are aware. Representable, a tool created by a team at Princeton University, focuses exclusively on gathering COI maps. 110 Districtr, redistricting software created by the Metric Geometry and Gerrymandering Group at Tufts University, and Dave's Redistricting, a free app created by software engineer Dave Bradlee and his team, allow the drawing of both COIs and complete district plans.¹¹¹

In the following Subparts, we review the necessary features for a COI public mapping tool to be most effective, using Representable as an illustrative example.

1. Crowdsourcing

A COI-mapping tool should gather input directly from community members. A bottom-up rather than top-down approach of collecting COIs is independent from the state, reducing concerns of political manipulation or exclusivity. 112 A crowdsourced tool is most successful when it is connected with grassroots efforts

^{109.} See Draw My CA Community, DRAW MY CAL., https://drawmycalifornia.org/drawmycacommunity.html (last visited Mar. 1, 2021).

^{110.} See About Representable, REPRESENTABLE, https://www.representable.org/about/ (last visited Mar. 1, 2021).

^{111.} See MGGG REDISTRICTING LAB, https://mggg.org/ (last visited Jan. 9, 2022); DISTRICTR, supra note 88; About DRA, DAVE'S REDISTRICTING, https://davesredistricting.org/maps#aboutus (last visited Sept. 26, 2021); Alec Ramsay, Drawing Communities in DRA, DRA 2020 (Apr. 6, 2021), https://medium.com/dra-2020/drawing-communities-in-dra-2e47646076f7.

^{112.} See Benjamin Forest, Information Sovereignty and GIS: The Evolution of "Communities of Interest" in Political Redistricting, 23 Pol. Geography 425, 429 (2004) (arguing that Texas decided to exclude and filter certain COIs from its GIS database to maintain state information sovereignty).

and existing organizations to reach diverse communities across a state. For example, Representable partners with advocacy groups and civic organizations to tailor the tool and conduct community-mapping drives, a means for groups to aggregate collections of COIs in a common automated database.¹¹³

2. Mappability

It is essential to gather community input in a mappable format.¹¹⁴ Having the direct coordinates of the geographic areas comprising communities makes COIs more concrete than a verbal description alone. These COI maps should also be exportable as standard geographical file formats compatible with other mapping software. As such, machine-readable COIs can be used by map drawers directly when creating district plans. To ensure mappability, Representable directs users to draw COIs on a map of the state that is overlaid by Census block groups and supports the exporting of COIs as GeoJSON files.¹¹⁵

3. Annotation

In addition to collecting geographic coordinates, a COI-mapping tool must also gather qualitative input on the shared interests constituting the basis for the community. Individuals should be able to explain the lines they draw and express their views of community interests. Combined with the maps, these annotations can serve as testimony during the public input process, providing redistricters with valuable context that cannot be discerned using quantitative or demographic data alone. Representable incorporates annotation by requiring that users fill out a community's economic or environmental interests, cultural or historical interests, activities and services, or other needs and concerns.

4. Scalability

Lastly, a COI-mapping tool must work on different scales. Congressional, legislative, and local districts vary widely in population. These different levels

^{113.} See Organizations, REPRESENTABLE, https://www.representable.org/partners/welcome/ (last visited Jan. 9, 2022). For an example of a specific community-mapping drive for a state partner, see VA Community Mapping Drive, REPRESENTABLE, https://www.representable.org/drive/va-community-mapping-drive/ (last visited Jan. 9, 2022).

^{114.} See Miller & Grofman, supra note 72, at 28 (discussing the need for public comment to be "feasibly mappable," with specific locations and instructions, in order to be instructive for redistricting authorities).

^{115.} See FAQs, REPRESENTABLE, https://www.representable.org/faq/ (last visited Jan. 9, 2022). GeoJSON (Geographic JavaScript Object Notation) is a popular computer data standard designed for the purpose of representing geographic features along with nongeographic annotations. It is based on the JSON format. See The GeoJSON Format, IETF, https://datatracker.ietf.org/doc/html/rfc7946 (last visited Mar. 1, 2021).

^{116.} See Mac Donald & Cain, supra note 31, at 612.

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of redistricting may all require information about COIs, which can also vary in population. COI maps created with more focus on local redistricting will be smaller than those created for use when drafting congressional districts. Thus, a mapping tool should support the drawing of communities that range in size from only a handful of block groups to hundreds. To support different uses, Representable works with partner organizations to adapt the tool for statewide, county, and municipal needs.

D. Quantitative metrics for community of interest splitting

Once a set of COI information gathered from a mapping tool is in hand, it can be used to measure how much or little any given district plan splits COIs. This is important as members of a community have greater ability for their votes to influence the outcome of a political race when they are not split across multiple districts. If a community is "cracked" into parts, it loses the ability to gain representation.117

A quantitative splitting metric would aid courts in determining whether state law was violated in relation to provisions on preserving COIs. Taking a cue from existing legal precedent, one option is for courts to measure the protection of COIs in the same way as they currently assess preservation of county boundaries—by counting the number of splits. 118 With access to a standardized database of COI maps, one can easily overlay the district plan and count the total number of communities that are split. In addition, it is generally desirable to consider not only whether a community is split, but also how many times it is split, as a community may be divided more than once by multiple district lines.¹¹⁹ Multiple measures exist for defining the splitting of counties or other political subdivisions.120

^{117.} See Bernard Grofman & Jonathan R. Cervas, The Terminology of Districting (Mar. 30, 2020) (manuscript at 14), https://ssrn.com/abstract=3540444. If a population is large enough, it can also be deprived of representation by being packed into a small number of districts. Id.

^{118.} For examples of federal judges and Supreme Court justices citing the number of split counties in gerrymander challenges, see, for example, League of United Latin Am. Citizens v. Perry, 548 U.S. 399, 455 (2006) (Stevens, J., concurring in part and dissenting in part); Cooper v. Harris, 137 S. Ct. 1455, 1469 n.3 (2017); Common Cause v. Rucho, 279 F. Supp. 3d 587, 605 (M.D.N.C.), vacated, 138 S. Ct. 2679 (2018).

^{119.} For example, one could add up the total number of components each split community is broken into, and use the sum as the final score. This provides a way to quantify the fragmentation of a community into more than two parts. See Grofman & Cervas, supra note 117, at 4.

^{120.} See, e.g., Moon Duchin, Outlier Analysis for Pennsylvania Congressional REDISTRICTING 10-11 (2018), https://mggg.org/uploads/md-report.pdf; Larry Guth, Ari Nieh & Thomas Weighill, Three Applications of Entropy to Gerrymandering, in POLITICAL GEOMETRY (Moon Duchin & Olivia Walch eds., forthcoming 2022) (manuscript at 3-10), https://arxiv.org/pdf/2010.14972.pdf; James Saxon, Methods for Respecting Political Subdivisions, in Automated Redistricting (2020) (manuscript at 7-8), https://saxon.cdac.uchicago.edu/~jsaxon/communities_pg.pdf; John A. Curiel & Tyler Steelman, Redistricting Out

One special need of a splitting metric for our purposes arises from the fact that COIs are generally not defined with the precision of a county or city. As we propose an empirically driven measure of COIs, there is likely to be some subjectivity and disagreement between community members over the exact placement of boundary lines.¹²¹ Therefore, it is desirable to have splitting metrics that prioritize the preservation of the agreed-upon core of a community and do not unduly penalize the exclusion of small slivers of the community. Such measures have long been developed in the physical, engineering, and social sciences, and we identify two that can easily be applied to COIs to quantify the fragmentation of communities.¹²²

The first measure we propose, which we call "Uncertainty of Membership," has roots in the science of information theory and is quantified in bits. 123 This measure characterizes how many bits of information are needed to specify how an entity is divided. Effectively, this measure corresponds to the amount of uncertainty a resident of that COI experiences when attempting to guess what district they reside in. For example, if a COI is split into two halves of equal population, then Uncertainty of Membership is a coin toss, 1.0 bit. If the community is unequally split, the Uncertainty of Membership is smaller, as an arbitrarily chosen member of that community is probably in the larger portion. An unsplit COI has, of course, zero bits of uncertainty.

The second measure, known as the effective number of splits, is based on measures originally developed by Laasko and Taagepera in 1979 to quantify multiparty divisions and has a long history in election research.¹²⁴ The formula

Representation: Democratic Harms in Splitting Zip Codes, 17 ELECTION L.J. 328, 338-39 (2018).

121. See Phillips & Montello, supra note 67, at 44 (finding that the majority of people agreed about the core of a community but differed on outer boundaries).

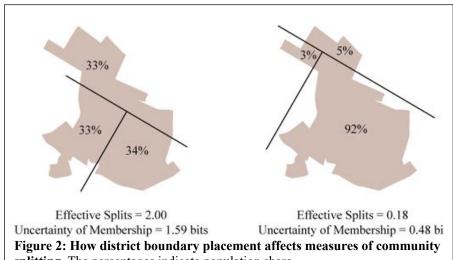
122. These measures of splitting have been incorporated into a popular public redistricting tool, Dave's Redistricting App. *See* DAVE'S REDISTRICTING, *supra* note 86; Alec Ramsay, *COI Splitting*, DRA 2020 (June 14, 2021), https://medium.com/dra-2020/coi-splitting-b7c9b541e175.

123. To calculate Uncertainty of Membership, in a particular community of interest, let p_i be the proportion of the community contained in a district. Then the Uncertainty of Membership is in units of bits and is defined as:

(Uncertainty of Membership) = $-\sum (\mathbf{p}_i \log_2 \mathbf{p}_i)$

where the sum includes all the parts into which the COI is divided. For example, a community that is split 90-10 has 0.47 bit of Uncertainty of Membership. For any given community, uncertainty of greater than 0.5 bit may be considered substantial. For the concept of measuring uncertainty in bits, see CLAUDE E. SHANNON & WARREN WEAVER, THE MATHEMATICAL THEORY OF COMMUNICATION 9-10, 18-22 (10th prtg. 1964). In physics, the same mathematical definition is also used to define entropy. See J. WILLARD GIBBS, ELEMENTARY PRINCIPLES IN STATISTICAL MECHANICS 129-138 (1902); L. Benguigui, The Different Paths to Entropy, 34 EUR. J. PHYSICS 303, 308-10 (2013).

124. See Markku Laakso & Rein Taagepera, "Effective" Number of Parties: A Measure with Application to West Europe, 12 COMPAR. POL. STUD. 3, 5-8 (1979). In the Laakso and Taagepera article, the metric is used to quantify the effective number of political parties, but it has far wider applicability. In the party and electoral systems literatures, this index is a



splitting. The percentages indicate population share.

for Effective Splits counts equal divisions as full splits and unequal splits less. Applied to COIs, we suggest that this measure be modified and called the "Effective Splits Index."125

Figure 2 illustrates how these measures would be applied to two hypothetical ways of splitting a COI. In the first example, a COI is split into three equalsized populations. The Uncertainty of Membership is 1.59 bits, the maximum possible value for a three-way split. There are 2 Effective Splits, equal to the actual number of splits. In the second example, 92% of the population of the COI is contained within one district. In this case, the Uncertainty of Membership is 0.48 bits, and there are only 0.18 Effective Splits. Mathematically, then, the second partition of the COI is less split than the first.

standard metric for measuring fractionalization. See, e.g., Orris Clemens Herfindahl, Concentration in the Steel Industry 19-20 (1950) (Ph.D. dissertation, Columbia University) (ProQuest); ALBERT O. HIRSCHMAN, NATIONAL POWER AND STRUCTURE OF FOREIGN TRADE 159 (1945); Scott L. Feld & Bernard Grofman, The Laakso-Taagepera Index in a Mean and Variance Framework, 19 J. THEORETICAL POL. 101, 101-05 (2007).

125. Using the Laakso-Taagepera index, the effective number of splits may be calculated as follows. In a particular community of interest, let p_i be the proportion of the community contained in a district. The effective number of split parts can be defined as: (Effective Splits) = $(1/\sum \mathbf{p}^2_i) - 1$

The "-1" turns the number of parts (Laakso and Taagepera's original analysis) into a number of splitting events. For a community that is split into equal halves by population, this formula gives 1 effective split. For a community that is divided into two components, one with 90% of its population and one with 10% of its population, the index works out to 0.22 effective splits. More than 0.5 effective splits may be regarded as a substantial split. Like Uncertainty of Membership, "effective splits" deem an unevenly split community as being less split than an equal split.

To assess how each of these splitting calculations behave when applied to real-world data, we will consider two different sets of communities. First, we will examine the Asian American communities in Queens, as described in the Introduction. Then, we will consider a set of crowdsourced communities around Richmond, Virginia, a prime area for study as there are multiple legislative maps available for comparison following the notable 2019 redistricting case *Bethune-Hill v. Virginia State Board of Elections*. 126

1. Queens

Let us first turn to our opening example, the community of interest comprising Flushing and Bayside. According to in-depth fieldwork conducted by AALDEF in 2011, Flushing had 152,078 people, equal to 21.2% of the population of a New York congressional district, while Bayside had 43,588 people, or 6.1% of a congressional district. Despite the fact that these two neighborhoods add up to only 27.3% of the population of one district, the maps of 1997, 2002, and 2012 all had district boundaries that split one or the other (**Table 1**).

Community	Map		of comn a district	•	Splits	Splitting metrics				
		Largest	Second- largest			Uncertainty of Membership (bits)	Effective Splits Index			
Flushing	1997	72.88%	17.94%	9.18%	2	1.094	0.7489			
Flushing	2002	100.00%			0	0.000	0.0000			
Flushing	2012	99.98%	0.02%		1	0.003	0.0005			
Bayside	1997	100.00%			0	0.000	0.0000			
Bayside	2002	71.24%	28.76%		1	0.866	0.6943			
Bayside	2012	100.00%			0	0.000	0.0000			
Flushing and Bayside	1997	78.93%	13.94%	7.13%	2	0.937	0.5445			
Flushing and Bayside	2002	93.59%	6.41%		1	0.344	0.1364			
Flushing and Bayside	2012	99.98%	0.02%		1	0.002	0.0004			

^{126. 368} F. Supp. 3d 872, 873-74 (E.D. Va. 2019).

^{127.} ASIAN AM. LEGAL DEF. & EDUC. FUND, ASIAN AMERICAN NEIGHBORHOOD BOUNDARIES, *supra* note 2, at 4-5; *Historical Population Change Data (1910-2020)*, U.S. CENSUS BUREAU, https://www.census.gov/data/tables/time-series/dec/popchange-data-text.html (last updated Oct. 8, 2021).

Table 1: Community of interest splits in Flushing and Bayside in the congressional maps of 1997, 2002, and 2012.

In 1997, Flushing was distributed across three districts, with nearly 27% of the population carved off from the great majority of the population. By conventional measures, this would count as two splits. By the two indices we propose, it scores as 1.09 bits of Uncertainty of Membership, and 0.75 Effective Split, both values indicating a substantial split.¹²⁸ In 2002, Flushing was not split, and the indices are both calculated at zero.

Finally, in the 2012 map, Flushing was, strictly speaking, split once. However, one of the two split components only had 35 people, or 0.02% of the total community population. This case is instructive, because the indices of splitting give very low values: 0.003 bits of Uncertainty of Membership and 0.0005 Effective Split. These scores reflect the intent and design of both measures to not penalize splits that are highly asymmetric, that is, those which split off only a small fraction of the population from the core of the community.

The splitting measures behave similarly when Flushing and Bayside are considered as a single, unified COI. In 1997, over 20% of the population was carved from the main community, forming a three-way split that is reflected as 0.94 bits of Uncertainty of Membership, and 0.54 Effective Split. In 2002, a reduced two-way split of 93.6% to 6.4% is reflected by lower splitting indices. Finally, in 2012, the values of both splitting metrics are negligible, again demonstrating the fact that these measures are capable of distinguishing district maps that damage community representation (1997 or 2002) from a map that preserves the core community and enables it to elect its candidate of choice (2012).

2. Richmond

As a second example using citizen-reported COIs, we analyzed the greater Richmond area. Richmond is part of a region in southeast Virginia whose legislative map was redrawn as a consequence of *Bethune-Hill v. Virginia State Board of Elections*, one of the most prominent racial gerrymandering cases in recent years. In *Bethune-Hill*, the court found that race predominated unduly in eleven of Virginia's twelve majority-Black state legislative districts drawn in 2011.¹²⁹

To collect COI maps, we set up a community-mapping drive on Representable and shared the link widely, through Representable social media and the email lists of advocacy organizations in Virginia, such as OneVirginia2021 and the National Black Nonpartisan Redistricting Organization. We additionally held a training session via Zoom where participants were given thorough instructions on how to map their community with Representable. After curation, the process

^{128.} See supra notes 123, 125.

^{129. 326} F. Supp. 3d 128, 137 (E.D. Va. 2018).

resulted in sixteen COIs with populations ranging from 2,620 to 39,090 people.¹³⁰ For comparison, the average population of a state legislative district was 80,010.¹³¹ Some examples of the COIs gathered include "The South Bank," described as "a demographic melting pot" that is concerned about "lack[ing] quality public

^{130.} Curation of COIs consisted of removing duplicates and eliminating COIs with populations much larger than the size of one district. Such large-population COIs must be split no matter the plan.

^{131.} The 2011 Census count of Virginia was 8,001,024, and it is divided into 100 legislative districts. *Historical Population Change Data* (1910-2020), supra note 127.

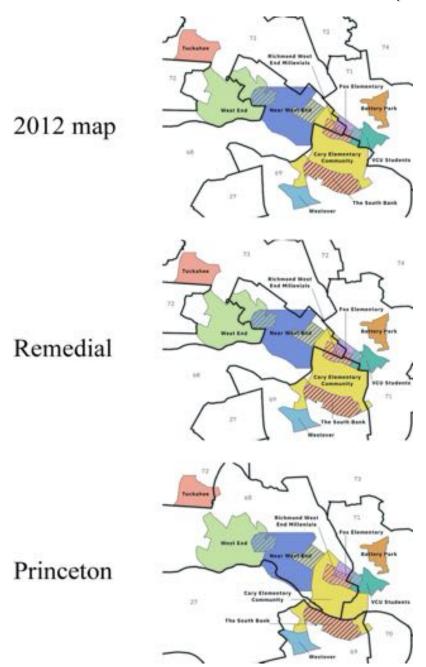


Figure 3: Three state legislative maps of the greater Richmond, Virginia area. Shaded regions indicate communities of interest gathered using the Representable mapping tool. Black lines indicate district boundaries.

schools";¹³² "Cary Elementary Community," which expressed a concern that "[a]ny district borders that split Richmond, Henrico county [sic], and northern Chesterfield county [sic] into more than one district would be highly suspect";¹³³ and "Westover," on the southern side of the city, where community members expressed concern about being "underfunded in maintenance and infrastructure in comparison to neighborhoods less than a mile away."¹³⁴

To analyze splitting measures, we focused on three maps of Virginia's State House: the 2012 map that was struck down, the final court-ordered map, and an alternative map generated by the Princeton Gerrymandering Project (**Figure 3**), drawn with the goal of maintaining COI integrity.¹³⁵ The resulting statistics are shown in

Map	Total Splits	Uncertainty of Membership	Effective Splits Index
2012 map	13	8.42 bits	7.81
Remedial map	13	8.47 bits	7.85
Princeton hypothetical alternative	13	6.31 bits	4.64

Table 2: Community of interest splits in three House of Delegates district maps in greater Richmond, Virginia.

In all three maps, COIs were split thirteen times, often with multiple splits within a single COI. Furthermore, the two metrics of splitting are similar between the 2012 map and the remedial map. This result is instructive, as it shows that even though the remedial map successfully reduced the packing of the Black population into a few racially gerrymandered districts, it did not increase protection for COIs. Had community maps been made available to the court, these metrics could have been easily calculated and used to inform the line-drawing process, which would have led to greater preservation of COIs alongside the unpacking of Black districts. This example also demonstrates that it is possible to honor COIs while also addressing other representational concerns.

 $^{132. \ \}textit{The South Bank}, \ \ \text{REPRESENTABLE}, \ \ \text{https://www.representable.org/submission/b27a33df-28d5-430d-9ff4-976c614c6886} \ (last visited Jan.~9, 2022).$

^{133.} Cary Elementary Community, REPRESENTABLE, https://www.representable.org/submission/b5561132-aae4-4ce2-8963-dd46178b0e50 (last visited Sept. 21, 2021).

^{134.} Westover, REPRESENTABLE, https://www.representable.org/submission/1b280605-f140-4a5e-bb02-8cd7d682914a_(last visited Jan. 2, 2022).

^{135.} Ben Williams, William T. Adler & Sam Wang, Lawmakers Should Fix Inequitable District Lines, VIRGINIAN-PILOT (Aug. 30, 2018, 12:00 AM), https://www.pilotonline.com/opinion/columns/article_7a44a308-abb4-11e8-bec1-0361d680b78f.html.

The Princeton alternative plan provides an instructive counterexample. Like the remedial map that was actually implemented, it was drawn as a publicly available response to the remediation process and prioritized unpacking Black voters from the districts under examination. 136 It was also drawn without using political data. Most critically, where possible, it was drawn to ensure that there was a major roadway connecting every part of the district. Intuitively, one might expect that drawing districts around thoroughfares would reduce the splitting of COIs, as communities with various economic or social interests are likely to rely on common roads. The values of the splitting indices for the Princeton alternative plan were indeed smaller than the other maps, demonstrating that COIs could be at least partially accommodated while still satisfying the requirements of racial fairness.

E. Future directions and challenges

The use of COIs in redistricting faces several challenges and areas for further improvement. In addition, several real-world steps need to be taken to make implementation a reality.

One concern is that self-reported communities may themselves result in problematic racial or partisan gerrymandering. This risk becomes larger as a COI's population starts to approach the ideal population of a district. For example, if a COI has a population that is nearly equal to that of the ideal district population, placing it entirely within one district could potentially constitute packing of that community to reduce the community's representation. Another concern is abuse of the process. Because COIs require more subjective arguments, public self-reporting may be coopted to insert statements that provide pretextual support for a map that advances a partisan interest. 137 These risks can be reduced by requiring that COIs be drawn prior to the preparation of a draft district map, and carefully weighing the representational impacts of larger-population COIs. Additionally, our splitting metrics measure the preservation of predefined COIs in aggregate, not any single COI in isolation, thus mitigating the impact of individual bad actors.

Another concern is whether consideration of COIs may be adverse to other principles of representation such as compactness, maintenance of political divisions, and other established criteria for fair districting. In the Bethune-Hill example, we have shown that it is possible to achieve similar outcomes for Black communities as the remedial plan that was implemented, while also attending to COI boundaries. Although achieving both goals may pose an intellectual challenge to redistricting

^{136.} For a detailed explanation of the process behind drawing the Princeton alternative plan, see Ben Williams, William T. Adler & Samuel S.-H. Wang, Accompanying Data and Analysis for "Lawmakers Should Fix Inequitable District Lines", The Virginian-Pilot, August 30, 2018, GITHUB, https://github.com/PrincetonUniversity/VA-gerrymander (last visited Mar. 3, 2021).

^{137.} See Memorandum from Bernard Grofman & Sean Trende to the C.J. and JJ. of the Sup. Ct. of Va. 7 (Dec. 27, 2021), https://www.vacourts.gov/courts/scv/districting/2021_virginia_redistricting_memo.pdf ("We are wary of allowing ourselves to be used as cat's paws by those who might have seen the comment period as an opportunity to guide us toward a partisan gerrymander under the guise of preserving communities of interest").

experts, we propose that this is merely a formalized, explicit version of the trade-offs that already occur in nonpartisan redistricting processes.

Ultimately, the splitting metrics we propose provide an objective, quantitative measure of how well a district plan respects community boundaries. While the lower the value of the splitting indices, the better, there is no universal COI-splitting threshold above which a map should be presumptively unconstitutional. This is because the number, size, and density of COIs differ from region to region, and compliance with other state criteria may necessitate the splitting of certain communities. Nonetheless, these splitting indices prove instructive when comparing different maps of the same region, allowing redistricters and courts to determine whether a proposed district plan splits COIs more than is necessary.

CONCLUSION

Communities of interest are a key criterion for fair redistricting. These communities are best defined by the people comprising them, who can identify common needs and interests that are not captured by demographic proxies. A participatory, citizen-led approach to COIs is made possible through the advent of software-based mapping tools, such as Representable. This technology, combined with convenient metrics to measure COI splits, allows map drawers and courts to integrate and assess communities in district plans more effectively. In light of narrowing routes to achieving equitable representation under the VRA in federal courts, the advancement of a viable and practical standard for communities of interest can provide a route through the states to promote fair and meaningful political representation.

^{138.} While there is no fixed threshold to judge a map overall, it is possible to assess the degree to which a single COI is substantially split. *See supra* notes 123, 125.

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APPENDIX A: COMMUNITY OF INTEREST DEFINITIONS BY STATE

C=Constitution S=Statute G=Legislative Guidelines D=Court Decisions

No X = specifically excluded from consideration

DEFINING COMMUNITIES OF INTEREST FOR REDISTRICTING PURPOSES	Follow political boundaries	Communities of interest	Geographic	Racial	Ethnic including indigenous, lan-	Social, educational level	Economic, occupation	Cultural	Historic	Communications links, media	Transportation	Climate	Religious	No gerrymandering for party	No gerrymandering for person/incumbent
Alabama	С	G	G	G	G	G	G		G					No G	No G
Alaska	C	C	D	D	D	С	C			D	D	D			
Arizona	C	C	D											C	C
Arkansas	С	G	G		G	G	G	G					G	G	No G
California	C	C	D			C	C			C	C			C	C
Colorado	C	C	С	C	C	C	C	D			C	D		C	C
Connecticut	C														
Delaware														C	C
Florida	С	No D												С	С
Georgia	G	G													No G
Hawaii	C	C				C	C							C	C
Idaho	C	S	S						S	D	D			S	S
Illinois		D													
Indiana															
Iowa	C													S	S
Kansas	G	G		G	G	G	G	G		D	D				No G
Kentucky	С	G													
Louisiana	G		G												
Maine	C	S	S								S				

Maryland	С	No D												
Massachu- setts	С	D												
Michigan	C	C					C	C	C				C	C
Minnesota	C	D	D	D	D	D	D	D	G	G	D		G	D
Mississippi	S	D	D				D		D		D			C
Missouri	С	No D											С	
Montana	S	G	G		G	G	G	G	G	G	G		S	S
Nebraska	C	G											G	G
Nevada	С	D	G		D	D	D	D						No D
New Hamp- shire	С	No D												
New Jersey	С	D			D	D	D	D					D	No D
New Mexico	S	S	S		S	D	D	D						No G
New York	C	C											C	C
North Caro- lina	С	G											G	No G
North Da- kota														
Ohio	С	С											С	С
Oklahoma	С	С	С	G	G	G	С	G	S				No C	No G
Oregon	С	S	S		S		G	G		G	S		S	S
Pennsylva- nia	С			D	D		D					D	D	
Rhode Is- land	S	S	S		D	D	D	D	S					
South Carolina	G	G	G	G	G	G	G	G	G	G			No G	No G
South Da- kota	S	S	S		G	G	G	G				G	No G	
Tennessee	C													
Texas	С	No D		G		G	G			D	D			
Utah	S	S	S			G	G	G				G	S	S
Vermont	С	S	S			S	S	D			D		No S	No S
Virginia	S	S	S	С	С	S	S	S			D		No	S

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										D	
Washington	S	S	D		D			S		C	
West Vir- ginia	S	S									
Wisconsin	C	S	D				D				
Wyoming	C	G	G								

APPENDIX B: COMMUNITIES OF INTEREST STATE COURT DISTRICTING CASES

Cases are organized by state and further listed chronologically beginning with the most recent cases. Certain federal cases are included.

ALABAMA

Collins v. Bennett, 684 So. 2d 681, 683-84 (Ala. 1995).

In addition to arguing that District Four's configuration is not "bizarre" in shape, [Plaintiffs] argue that District Four was extended into Tuscaloosa for various reasons aside from race, including: . . . preservation of communities of interest, and retrogression.

ALASKA

In re 2011 Redistricting Cases, 274 P.3d 466, 467 (Alaska 2012).

The Board must first design a plan focusing on compliance with the article VI, section 6 requirements of contiguity, compactness, and relative socioeconomic integration; it may consider local government boundaries and should use drainage and other geographic features in describing boundaries wherever possible.

In re 2001 Redistricting Cases, 44 P.3d 141, 145 (Alaska 2002).

Dividing the area does not violate the constitutional requirement that districts be socio-economically integrated so long as each portion is integrated, as nearly as practicable, with the district in which it is placed. Further, dividing an unorganized area such as the Delta Junction area does not, without more, constitute sufficient evidence of an equal protection violation such that the board must justify its action. Nevertheless, because this order requires reconsideration of the districts encompassing this area, on remand the board should take a hard look at alternatives, including constitutional alternatives that preserve socio-economically integrated areas. . . . The Upper Lakes region is as nearly as practicable socio-economically integrated with the Kodiak Island Borough through such links as their mutual membership in the Southwest Alaska Municipal Conference and their involvement in the commercial fishing industry.

Hickel v. Se. Conf., 846 P.2d 38, 46-47, 52 (Alaska 1992), as modified on reh'g (Mar. 12, 1993).

We have looked before to the Minutes of the Constitutional Convention for guidance in defining "relatively integrated socio-economic area." *Kenai Peninsula Borough*, 743 P.2d at 1360 n.11; *Carpenter*, 667 P.2d at 1215;

Groh, 526 P.2d at 878. The delegates explained the "socio-economic principle" as follows:

[W]here people live together and work together and earn their living together, where people do that, they should be logically grouped that way.

3 PACC 1836 (January 11, 1956). Accordingly, the delegates define an integrated socio-economic unit as:

an economic unit inhabited by people. In other words, the stress is placed on the canton idea, a group of people living within a geographic unit, socio-economic, following if possible, similar economic pursuits.

3 PACC 1873 (January 12, 1956). In order to satisfy this constitutional requirement, the Governor must provide "sufficient evidence of socio-economic integration of the communities linked by the redistricting, proof of actual interaction and interconnectedness rather than mere homogeneity." Kenai Peninsula Borough, 743 P.2d at 1363.... In our previous reapportionment decisions we have identified several specific characteristics of socio-economic integration. In Kenai Peninsula Borough, we found that service by the state ferry system, daily local air taxi service, a common major economic activity, shared fishing areas, a common interest in the management of state lands, the predominately Native character of the populace, and historical links evidenced socio-economic integration of Hoonah and Metlakatla with several other southeastern island communities. 743 P.2d at 1361. In the same case, we found it persuasive that North Kenai and South Anchorage were geographically proximate, were linked by daily airline flights, shared recreational and commercial fishing areas, and were both strongly dependent on Anchorage for transportation, entertainment, news and professional services. *Id.* at 1362-63. In *Groh*, we stated that "patterns of housing, income levels and minority residences" in an urban area "may form a basis for districting, [although] they lack the necessary significance to justify" large population variances. 526 P.2d at 879.... "Relatively" means that we compare proposed districts to other previously existing and proposed districts as well as principal alternative districts to determine if socio-economic links are sufficient. "Relatively" does not mean "minimally," and it does not weaken the constitutional requirement of integration. . . . These districts do not contain, as nearly as practicable, relatively integrated socio-economic areas, identified with due regard for local governmental and geographic boundaries. Although these boundaries need not necessarily be followed in creating election districts, they must be considered by the Board in so far as they indicate the true socio-economic integration of several areas.

Kenai Peninsula Borough v. State, 743 P.2d 1352, 1359 (Alaska 1987) (quoting Egan v. Hammond, 502 P.2d 856, 865 (Alaska 1972)).

At the outset we recognize the difficulty of creating districts of equal population while also conforming to the Alaska constitutional mandate that the districts "be formed of contiguous and compact territory containing as

nearly as practicable a relatively integrated socio-economic area." When Alaska's geographical, climatical, ethnic, cultural and socio-economic differences are contemplated the task assumes Herculean proportions commensurate with Alaska's enormous land area. The problems are multiplied by Alaska's sparse and widely scattered population and the relative inaccessibility of portions of the state. [See Hickel, 846 P.2d at 46-53, for summary.]

Carpenter v. Hammond, 667 P.2d 1204, 1214-15 (Alaska 1983).

Our state constitution mandates that election districts "contain as nearly as practicable a relatively integrated socio-economic area." Alaska Const. art. VI, § 6. The parties' initial dispute centers on the content of the socio-economic integration requirement. In its decision, the superior court stated:

The concept embodies a number of interrelated components, including economic base, ethnic composition, governmental boundaries, community size, transportation and communication links, and lifestyle. The reapportionment process requires a balancing of these components; one may be deemed predominant while another may be subordinated. . . . Socio-economic integration does not require that regular social and economic interactions or transactions occur between the communities of a district, although such occurrences are indicia of socio-economic integration.

Carpenter contends this analysis is incorrect since it fails to require regular interaction between the communities of a district. She asserts that the superior court's "similarity of interest" test insufficiently emphasizes the need for intra-district interaction. The state characterizes redistricting as a balancing process and argues that communities with common economic bases and political interests may be joined, despite the lack of socio-economic interaction. In *Groh v. Egan*, 526 P.2d 863, 878 (Alaska 1974), we looked to the Constitutional Convention minutes for a definition of the term "socio-economic area":

Where people live together and work together and earn their living together, where people do that, they should be logically grouped that way. . . . It cannot be defined with mathematical precision, but it is a definite term, and is susceptible of a definite interpretation. What it means is an economic unit inhabited by people. In other words, the stress is placed on the canton idea, a group of people living within a geographic unit, socio-economic, following if possible, similar economic pursuits. It has, as I say, no mathematically precise definition, but it has a definite meaning.

526 P.2d at 878, quoting Minutes, Constitutional Convention 1836, 1873.

Groh v. Egan, 526 P.2d 863, 878 (Alaska 1974).

[T]he Advisory Board endeavored to identify like socio-economic areas, based on the cost of housing, the concentration of minorities, income levels, the need for transit systems and growth and development plans.

Egan v. Hammond, 502 P.2d 856, 889 (Alaska 1972).

In doing so the Masters were guided by the same concerns of the Board: that in addition to seeking arithmetically equal representation, the districts should also be an expression of natural geographic units and socio-economic communities as far as possible.

ARIZONA

Harris v. Ariz. Indep. Redistricting Comm'n, 578 U.S. 253, 256 (2016).

After each decennial census, the Commission redraws Arizona's 30 legislative districts. The first step in the process is to create "districts of equal population in a grid-like pattern across the state." § 1(14). It then adjusts the grid to "the extent practicable" in order to take into account the need for population equality; to maintain geographic compactness and continuity; to show respect for "communities of interest"; to follow locality boundaries; and to use "visible geographic features" and "undivided . . . tracts." §§ 1(14)(B)-(E).

Ariz. Indep. Redistricting Comm'n v. Brewer, 275 P.3d 1267, 1277 (Ariz. 2012).

The next five goals—mandating equal population, geographic compactness and contiguity, respect for communities of interest, use of certain recognized boundaries, and competitive districts where competitiveness is not significantly detrimental to other goals—are required "to the extent practicable." §§ 1(14)(B)-(F).

Ariz. Minority Coal. for Fair Redistricting v. Ariz. Indep. Redistricting Comm'n, 121 P.3d 843, 868 (Ariz. Ct. App. 2005) (per curiam).

> Second, Section 1(14)(E) explicitly addresses the manner in which district boundaries must use community boundaries. Ariz. Const. art. 4, pt. 2, § 1(14)(E) ("To the extent practicable, district lines shall use visible geographic features, city, town and county boundaries, and undivided census tracts."). The only conceivable goal of this subsection is to avoid splitting communities to the extent practicable. Because the voters failed to employ similarly explicit language in Section 1(14)(D) concerning communities of interest, we conclude for this additional reason that the provision permits the Commission to "respect" a community of interest in ways other than simply placing the community into a single district.

ARKANSAS

Wells v. White, 623 S.W.2d 187, 189 (Ark. 1981).

Also, it is proper to consider existing legislative districts, communities of interest, natural boundaries, incumbency and geographic interests.

CALIFORNIA

Vandermost v. Bowen, 269 P.3d 446, 457-58 (Cal. 2012).

Fourth, the Commission's maps must respect "[t]he geographic integrity of any city, county, city and county, local neighborhood, or local community of interest . . . in a manner that minimizes their division to the extent possible without violating the requirements of any of the preceding subdivisions." (Cal. Const. art. XXI, § 2, subd. (d)(4).) . . . Unlike former article XXI, section 2, or the judicial decisions on which that provision was based, however, the current version of article XXI, in section 2, subdivision (d), expressly ranks the criteria in order of priority, stating explicitly that a lower-ranked criterion is to be followed only when doing so does not conflict with a higher-ranked criterion or criteria.

Wilson v. Eu, 823 P.2d 545, 556 (Cal. 1992).

As previously indicated, the benefits of using undivided census tracts, namely, to maintain reasonable geographical integrity, preserve communities of interest, and assure full participation by minority groups in the reapportionment process, amply constitute such justification.

Legislature v. Reinecke, 516 P.2d 6, 10, 16, 19 (Cal. 1973) (considering criteria including: race and ethnicity, agriculture, geography, lumbering, urban, suburban, rural, tourism, cattle, water supply, manufacturing, military bases, university, recreation, research, electronics, and retirement communities).

The Masters adopted seven criteria which they used in formulating their plans. (Report, 7-13.) They may be summarized as follows: . . . (5) The community of interests of the population of an area should be considered in determining whether the area should be included within or excluded from a proposed district so that all of the citizens of the district may be represented reasonably, fairly and effectively. . . . The social and economic interests common to the population of an area which are probable subjects of legislative action, generally termed a "community of interests" [sic] (cf. Gov.Code, sec. 25001) should be considered in determining whether the area should be included within or excluded from a proposed district in order that all of the citizens of the district might be represented reasonably, fairly and effectively. Examples of such interests, among others, are those common to an urban area, a rural area, an industrial area or an agricultural area, and those common to areas in which the people share similar living standards, use the same transportation facilities, have similar work opportunities. or have access to the same media of communication [sic] relevant to the election process. . . . The districts in the plan unnecessarily split cities and counties, often combine whole or partial counties across mountain ranges

or bodies of water and disregard travel patterns, geography, common economic activities and other "community of interest" indicators.

Castorena v. City of Los Angeles, 110 Cal. Rptr. 569, 578 (Ct. App. 1973), super-seded by constitutional amendment, CAL. CONST. art XXI, § 2(d)(4).

It is meaningless to speak of dilution as a constitutional wrong, unless there is a particular concentration of voting strength to which identifiable minorities—be they racial, ethnic, political, religious or whatever—are entitled. There is no such constitutional command. If *Whitcomb v. Chavis, supra*, teaches us anything it is that, absent other factors, a group with distinctive interests has no right to be represented in a legislative body simply because 'it is numerous enough to command at least one seat and represents a majority living in an area sufficiently compact to constitute a singlemember district.' As the court points out, to recognize such a right in one distinctive minority, would force its recognition on behalf of other groups such as 'union oriented workers, the university community'—an important factor in towns such as Berkeley, California—'or ethnic groups occupying identifiable areas' (403 U.S. at 156, 91 S. Ct. at 1875.).

Griswold v. Cnty. of San Diego, 107 Cal. Rptr. 845, 852 (Ct. App. 1973).

Consideration of such factors as topography, geography, contiguity and the existence of communities of interest, and the weight to be given them in establishing political districts, are matters directed primarily to the legislative branch for determination. When such determinations have been made by the legislative body, courts should not interfere except upon a showing of manifest abuse. No such showing was made in this case.

COLORADO

In re Colo. Indep. Legis. Redistricting Comm'n, No. 21SA305, 2021 WL 5294962, at *7 (Colo. Nov. 15, 2021)

4. Preservation of Communities of Interest and Political Subdivisions Article V, section 48.1(2)(a) requires that, "[a]s much as is reasonably possible, the commission's plan must preserve whole communities of interest and whole political subdivisions, such as counties, cities, and towns." This section further provides that "with regard to any county, city, city and county, or town whose population is less than a district's permitted population, the commission shall presume that such county, city, city and county, or town should be wholly contained within a district." *Id.* But this section expressly allows for the division of any such political subdivision when, "based on a preponderance of the evidence in the record, a community of interest's legislative issues are more essential to the fair and effective representation of residents of the district." *Id.* When the commission divides a county, city, city and county, or town, however, it is required to minimize the number of such divisions. *Id.*

In re Colo. Indep. Cong. Redistricting Comm'n, 497 P.3d 493, 512-513 (Colo. 2021).

4. Preservation of Communities of Interest and Political Subdivisions As explained above, the Commission is required to preserve communities of interest as much as is reasonably possible. Colo. Const. art. V, § 44.3(2)(a)... Upon reviewing each of these arguments, we conclude that the Commission did not abuse its discretion in attending to its obligation under section 44.3(2)(a) to preserve communities of interest and political subdivisions. The Commission specifically identified relevant communities of interest in each district based on this court's precedent and public comments and testimony. . . . The Commission's identification of these communities of interest was supported by the record before it, and its decisions whether and how to preserve these communities or political subdivisions reflect a reasonable choice among multiple alternatives. As the various opposers' arguments demonstrate, tradeoffs are inevitable in this process, and efforts to preserve different communities of interest will often conflict.

In re Interrogatories on Senate Bill 21-247 Submitted by Colo. Gen. Assembly, 488 P.3d 1008, 1019 (Colo. 2021).

Indeed, some other types of data and testimony presumably *must* be heard by the commissions to determine the existence of and relevant boundaries for different "communities of interest." *See* Colo. Const. art. V, §§ 44.3(2)(a), 48.1(2)(a) (requiring that the final plans "preserve whole communities of interest" to the extent possible); *id.* §§ 44(3)(b)(I), 46(3)(b)(I) (defining "community of interest" as any group that "shares one or more substantial interests that may be the subject of . . . legislative action" and "is composed of a reasonably proximate population").

Hall v. Moreno, 270 P.3d 961, 970-972, 970 n.6 (Colo. 2012) (describing communities of interest as including concerns related to the regulation of oil and gas development in light of the new technology of hydraulic fracturing ("fracking"), agricultural lands; Hispanic voting strength; the Western Slope; water scarcity; local units of government; Rocky Flats radioactive cleanup; the I-70 corridor; Rocky Mountain national park; the pine bark beetle kill infestation; state universities; health and high-tech industries; rural populace; ranching; mining; tourism; alternative energy production; unemployment rate; mass transportation; open space and wildlife; military bases; and infrastructure improvement).

[S]ee also Upham v. Seamon, 456 U.S. 37, 41, 102 S. Ct. 1518, 71 L. Ed. 2d 725 (1982) ("[W]henever adherence to state policy does not detract from the requirements of the Federal Constitution, we hold that a district court should . . . honor state policies in the context of congressional reapportionment."). These factors are: (1) the preservation of political subdivisions; (2) the preservation of communities of interest; (3) district compactness; and (4) the minimal disruption of the existing district boundaries. §§ 2-1-

102(1)(b)(I)-(IV).... Similarly, the second non-constitutional factor enumerated in our statute, the preservation of communities of interest, stems directly from the underlying purpose of maximizing fair and effective representation. See id. at 91 ("We are convinced that a plan which provides fair and effective representation for the people of Colorado must identify and respect the most important communities of interest within the state."). By grouping like-minded and similarly situated populations, this factor seeks to create cohesive districts that are organized around similar "ethnic, cultural, economic, trade area, geographic, and demographic factors." § 2-1-102(1)(b)(II). Indeed, "formulating a plan without any such consideration would constitute a wholly arbitrary and capricious exercise." Carstens, 543 F. Supp. at 91 (quoting, with approval, closing argument). Before the trial court below, multiple current U.S. Representatives testified as to the importance of organizing the districts around issues that are uniquely faced in each area of the state due to regional differences in economy, geography, climate, and demographics. The testimony revealed that if an important issue is divided across multiple districts, it is likely to receive diffuse and unfocused attention from the multiple representatives it affects, as each is pulled in other directions by the many other issues confronting their districts. However, if a discrete and unique issue is placed in one district, that representative may familiarize herself with the complexities of the issue and the stakeholders it affects. Additionally, if the issue is of especially unique importance to her district, she may use a portion of her limited resources to designate a member of her staff to focus exclusively on the issue. Finally, the importance of this unique issue to this one district will enable the representative to become the face of the issue for Colorado, which should automatically provide her with a seat at the table to represent the needs and desires of the people of Colorado within any greater national debate. Unlike the preservation of political subdivisions, which are relatively static, we acknowledge that the myriad ways to define communities of interest regularly evolve. This flexibility provides for the organization of congressional districts to address the most pressing issues of the day. A definition of communities of interest that focuses on current issues and communities is consistent with the 2010 amendment to section 2-1-102(1)(b)(II), which deleted a provision that had explicitly recognized as "[t]raditional communities of interest" the Western Slope and the Eastern Plains. Pragmatically, this allows for the dissolution of old communities of interest and the recognition of emerging communities of interest as the state's demographics continue to shift and change. . . . The open-endedness of the present version of section 2-1-102 also stands in stark contrast with the explicit hierarchy that guides the reapportionment commission in reapportioning state legislative districts. Cf. In re Reapportionment Colo. Gen. Assembly, No. 11SA282, 2011 WL 5830123, at *2 (Colo. Nov. 15, 2011). In reapportioning Colorado's state legislative districts, the reapportionment commission must adhere to six criteria in the following order of priority: . . . (6) preservation of communities of interest. Id.; see also Colo. Const. art. V, §§ 46, 47.

In re Colo. Gen. Assembly, 332 P.3d 108, 111 (Colo. 2011).

The remaining criteria, compactness and preservation of communities of interest, are subordinate to compliance with section 47(2).

Beauprez v. Avalos, 42 P.3d 642, 646-47 (Colo. 2002).

In reaching its decision to adopt the ARL map, the district court relied heavily on *Carstens v. Lamm*, 543 F. Supp. 68 (D. Colo.1982). . . . *Carstens* then went on to hold that, when the two constitutional requirements are met by several proposed plans, a court may consider the following non-constitutional factors in adopting a plan: . . . (3) preservation of communities of interest. *Id.* at 82.

Avalos v. Davidson, No. 01 CV 2897, 2002 WL 1895406, at *2-3 (Colo. Dist. Ct. Jan. 25, 2002), *aff'd sub nom*. Beauprez v. Avalos, 42 P.3d 642 (Colo. 2002).

These non-constitutional criteria are . . . and preservation of community of interest. . . . The last non-constitutional criteria is more difficult to define and apply. The last non-constitutional requirement is protection of community of interest. *Carstens* [Carstens v. Lamm, 543 F. Supp. 68 (D. Colo. 1982)] defines "community of interest" as follows:

For our purposes, community of interest represents distinct units which share common concerns with respect to one or more identifiable features such as geography, demography, ethnicity, culture, social economic status or trade.

Carstens, p. 91. In discussing the seven congressional districts adopted by this Decision the Court will attempt to identify the community of interest in each district. However, it must be kept in mind when a congressional district must consist of 614,000 people, approximately, it is impossible to draw a district in which every person in the district shares all the same community of interest with every other person in the district. The Court may only use its best judgment in drawing a district where the people in the district, for the most part, share common concerns.

In re Colo. Gen. Assembly, 828 P.2d 185, 194 (Colo. 1992).

The least weighty constitutional consideration is the "preservation wherever possible of communities of interest, including ethnic, cultural, economic, trade area, geographic, and demographic factors, Colo. Const. art. V, § 47(3)." In re Reapportionment II, 647 P.2d at 211.

In re Reapportionment of Colo. Gen. Assembly, 647 P.2d 209, 213 (Colo. 1982) (per curiam).

From the information before us, we conclude that the new plan's districts are not as compact as possible, nor does the plan preserve communities of interest wherever possible, and in these respects, it violates the clear constitutional criteria of Art. V, §§ 47(1) and (3).

In re Reapportionment of Colo. Gen. Assembly, 647 P.2d 191, 200 n.1 (Colo. 1982) (Lohr, J., concurring in part and dissenting in part).

The least weighty of the constitutional requirements is the prescription for preservation of communities of interest. Colo. Const. art. V, § 47(3). By its terms, this requirement is subordinated to the requirements of section 46 and the other requirements of section 47.

FLORIDA

League of Women Voters of Fla. v. Detzner, 179 So. 3d 258, 291, 295 (Fla. 2015).

During the session, there was considerable public testimony from Palm Beach and Broward County leaders in support of maintaining a North-South configuration in order to respect the separate coastal and inland communities of interest there.... See, e.g., Apportionment I, 83 So. 3d at 673 ("[M]aintaining communities of interest is not required by the constitution, and comporting with such a principle must not come at the expense of complying with constitutional imperatives.").... [W]e appreciate the Senate's desire to keep the Sarasota-Manatee community of interest intact in District 16.

In re Senate Joint Resol. of Legis. Apportionment 1176, 83 So. 3d 597, 633, 656, 673 (Fla. 2012).

However, as we have discussed in analyzing the constitutional phrase "compactness" and our discussion of Districts 1 and 3, maintaining communities of interest is not required by the constitution, and comporting with such a principle must not come at the expense of complying with constitutional imperatives. . . . Those cases defining compactness as a functional concept derive from states that, for the most part, have different constitutional provisions from those in Florida and discuss the numerous requirements in tandem, including contiguity, geographical compactness, and respecting communities of interest and common interests. . . . As explained above in our discussion of the standards, we reject the Senate's definition of compactness as including communities of interest. . . . The concept of "communities of interest" is not part of the constitutional term "compactness."

Fla. Senate v. Forman, 826 So. 2d 279, 282 (Fla. 2002).

The appellees' actual complaint is that the Senate plan should be declared unconstitutional because the Legislature ignored traditional principles of redistricting such as compactness and preservation of communities of interest. This is evident by the language in the court's order: "Both Marion County and the City of Ocala clearly fall within the definition of a political subdivision and *each has a clear community of interests unique to its population*"; "To comply with numerical parity without regard to its recognized

commonality of community of interest, the court finds that the preservation of the community of interests intended by the legislature as relates to Marion County is a perversion of that concept and of fundamental fairness." (Emphasis added.) However, in *House Joint Resolution 1987*, this Court specifically rejected this type of claim: "[N]either the United States nor the Florida Constitution requires that the Florida Legislature apportion legislative districts in a compact manner or that the Legislature preserve communities of interest." 817 So. 2d at 831.

In re Constitutionality of House Joint Resol. 1987, 817 So. 2d 819, 831 (Fla. 2002).

Several parties also claim that House Joint Resolution 1987 should be declared invalid because the Legislature ignored traditional principles of redistricting such as compactness and preservation of communities of interest. However, neither the United States nor the Florida Constitution requires that the Florida Legislature apportion legislative districts in a compact manner or that the Legislature preserve communities of interest.

In re Constitutionality of Senate Joint Resol. 2G, Special Apportionment Session 1992, 601 So. 2d 543, 546 (Fla. 1992).

The dissenters suggest that Polk County black voters have little community of interest with those in Hillsborough and Pinellas Counties other than their race. That may be so, but under the law community of interest must give way to racial and ethnic fairness.

In re Constitutionality of Senate Joint Resol. 2G, Special Apportionment Session 1992, 601 So. 2d 543, 549 (Fla. 1992) (McDonald, J., dissenting).

Historically, the traditional base for political representation was geographical communities. These communities with cities, counties, or other previously cohesive political entities are divided or ripped asunder to accommodate the present districts. Gerrymandering and weird contiguity geography, never previously favored, are endorsed in the goal to create minority districts. I do not think that was intended.

GEORGIA

Miller v. Johnson, 515 U.S. 900, 916 (1995).

To make this showing, a plaintiff must prove that the legislature subordinated traditional race-neutral districting principles, including but not limited to compactness, contiguity, and respect for political subdivisions or communities defined by actual shared interests, to racial considerations.

HAWAII

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Kostick v. Nago, 960 F. Supp. 2d 1074, 1081 (D. Haw. 2013) (per curiam), aff'd, 571 U.S. 1161 (2014).

Historically, residents of each basic island unit "have developed their own and, in some instances, severable communities of interests" resulting in "an almost personalized identification of the residents of each county—with and as an integral part of that county." *Burns v. Gill*, 316 F. Supp. 1285, 1291 (D. Haw. 1970) (three judge court). County residents "take great interest in the problems of their own county because of that very insularity brought about by the surrounding and separating ocean." *Id.* And forty-three years after *Gill*, many individuals still identify themselves in relation to their island. *See, e.g.*, Doc. No. 66-3, Defs.' Ex. Y, Solomon Decl. ¶ 9 (noting "socio-economic and cultural differences . . . that predated statehood" between parts of Maui and the Big Island (as Hawaii Island is often called)). The integrity of the basic island units reaches back centuries. A three judge court explained in 1965:

Hawaii is unique in many respects. It is the only state that has been successively an absolute monarchy, a constitutional monarchy, a republic, and then a territory of the United States before its admission as a state. Because each was insulated from the other by wide channels and high seas and historically ruled first by chiefs and then royal governors, after annexation the seven major, inhabited islands of the State were divided up into the four counties of Kauai, Maui, Hawaii and the City and County of Honolulu.

Holt v. Richardson, 238 F. Supp. 468, 470-71 (D. Haw. 1965) (internal citation omitted), vacated by Burns, 384 U.S. 73, 86 S. Ct. 1286.

IDAHO

Twin Falls Cnty. v. Idaho Comm'n on Redistricting, 271 P.3d 1202, 1213, 1214 n.7 (Idaho 2012) (Jones, J., dissenting).

In *Bonneville County* [w]e stated:

The Commission had a choice to make, and justified its choice by favoring a statutory preference for keeping intact community of interest. See I.C. § 72-1506(2)....

The Court deferred to the Commission's determination that the division of Kootenai County into districts was in compliance with Article III, § 5 of the Idaho Constitution but, then, when considering the specifics of one of the splits, applied one of the statutory requirements of I.C. § 72-1506—subsection (2), relating to preservation of local communities of interest—in preference to subsection (5), calling for avoidance, whenever possible, of county splits. . . . The Commission tried to justify that unconstitutional plan by arguing that it split counties "to keep together traditional neighborhoods and communities of interest while avoiding oddly shaped districts."

Bonneville Cnty. v. Ysursa, 129 P.3d 1213, 1221 (Idaho 2005).

The Commission had a choice to make, and justified its choice by favoring a statutory preference for keeping intact a community of interest. See I.C. § 72–1506(2). In this instance, the choice of which county to split in a manner that results in a district not being wholly contained within that particular county is a judgment that must be vested with the Commission.

Bingham Cnty. v. Idaho Comm'n for Reapportionment, 55 P.3d 863, 867, 870 (Idaho 2002).

If it is necessary to go outside county boundaries to form a district, considerations in § 72-1506 come into play, such as joining communities of interest and avoidance of oddly shaped districts. . . . The statute does not define what a "traditional neighborhood" or a "local community of interest" is. The United States Supreme Court has offered the following guidance; including whether the residents in the district regard themselves as a community; whether the residents in the district live in a urban or rural areas; and whether tentacles, appendages, or parts of the district share common transportation lines and media sources. *See, e.g., Lawyer v. Dep't of Justice*, 521 U.S. 567, 581-82, 117 S. Ct. 2186, 2195, 138 L. Ed. 2d 669, 682-84 (1997); *Bush v. Vera*, 517 U.S. 952, 966, 116 S. Ct. 1941, 1955, 135 L. Ed. 2d 248, 261-62 (1996).

ILLINOIS

Beaubien v. Ryan, 762 N.E.2d 501, 506-07 (Ill. 2001).

Plaintiffs complain that the Commission's plan will result in some units of local government being split into different districts, but a district does not fail the "reasonably compact" standard simply because its boundaries cut through or across local units of government, such as municipalities, villages, townships, cities and counties. Our court has long recognized that the boundaries of such units do not necessarily reveal communities of interest and that such units may have to be split for redistricting purposes in order for the resulting districts to meet the other requirements of law, particularly the requirement of equality of population. *See Grivetti*, 50 Ill. 2d at 166-67, 277 N.E.2d 881.

Cole-Randazzo v. Ryan, 762 N.E.2d 485, 490 (Ill. 2001) (Thomas, J., dissenting).

Defendants and intervening defendants respond that any shapes departing from a compactness norm are justified by the influence of other neutral redistricting criteria, including the irregular state, county and municipal boundaries within the State of Illinois, adherence to natural boundaries such as rivers, the preservation of political subdivision and precinct lines and the cores of existing districts, protecting incumbencies, and maintaining communities of interest.

Cole-Randazzo v. Ryan, 762 N.E.2d 485, 492-93 (Ill. 2001) (Garman, J., dissenting).

Further, Legislative District 51 ignores communities of interest by joining urban and rural areas with vastly different and divergent concerns. . . . However, after-the-fact rationalization regarding alleged "swing districts" or thin assertions of communities of interest within proposed districts do little to bring the process back in line with the constitutional principles from which it has strayed.

People ex rel. Burris v. Ryan, 588 N.E.2d 1023, 1027-28 (III. 1991)

In defining those requirements, this court over the years has emphasized that a redistricting plan must not dilute minority voting strength, must not accomplish political gerrymandering and must keep communities of interest. . . . On the other hand, boundary lines of villages, townships, counties and cities do not necessarily reveal communities of interests.

KANSAS

Petition of Stephan, 836 P.2d 574, 582 (Kan. 1992) (per curiam).

In determining communities of interest, the Committee noted that interests common to a population area were considered to ensure that all citizens receive reasonable, fair, and effective representation. Specifically enumerated were those interests

> "common to an urban area, a rural area, an industrial area or an agricultural area and those common to areas where people share similar living standards, racial and ethnic concerns, use the same transportation facilities, share school districts, have similar work opportunities, or have access to the same media of communication relevant to the election process."

The Committee recognized, as does this court, that

"innumerable districts ideal for particular communities can be constructed if each is considered in isolation; but, when the entire state is divided into a specified number of districts, that which may appear ideal for one place or another must be subordinated to the goal of fair and reasonable apportionment of the whole state."

KENTUCKY

Fischer v. State Bd. of Elections, 879 S.W.2d 475, 476 (Ky. 1994).

Among other things, the trial court considered "various political factors" such as "community of interest, voter registration, voter participation habits, and residence of incumbent legislators" as valid in the reapportionment paradigm.

MAINE

In re 2003 Apportionment of State Senate, 827 A.2d 844, 848 (Me. 2003), *amended*, 846 A.2d 995 (Me. 2004).

Therefore, the Court has crafted a new configuration that would reduce the added square miles and travel challenges that resulted from the Court's proposed plan, while at the same time fulfilling the Court's responsibility to minimize divisions of counties, municipalities, and communities of interest.

In re 2003 Legis. Apportionment of House of Representatives, 827 A.2d 810, 814-15 (Me. 2003).

The commission shall recognize that all political subdivision boundaries are not of equal importance and give weight to the interests of local communities when making district boundary decisions.

21-A M.R.S.A. § 1206-A (Supp.2002)

In re Op. of the Justs., 6 Me. 486, 488 (1826) (perhaps the first mention of a community of interest in a redistricting case).

Now, in the choice of representatives, each of those towns acts independently of all the other towns in the county; there is no community of interest among the people of that county in respect to the elective franchise.

MARYLAND

In re 2012 Legis. Districting, 80 A.3d 1073, 1080 (Md. 2013).

So long as the plan they devise does not violate State or Federal law, the political branches may pursue a wide variety of objectives, including preserving community interests, promoting of regionalism, and aiding political allies or injuring political rivals.

Fletcher v. Lamone, 831 F. Supp. 2d 887, 899 (D. Md. 2011), aff'd, 567 U.S. 930 (2012).

Although the distances at issue here are not as dramatic as in some cases courts have considered—the two Latino communities connected in *LULAC* were 300 miles apart, for instance—the differences between the two areas are real. While Baltimore's economy has traditionally been based on industry, medical services, and its port, Washington's economic strength derives primarily from the federal government. The two cities may share an airport, but they have separate cultural institutions and root for rival sports teams. And most importantly for election issues, both areas are in different media markets and have different newspapers. In light of these differences, we believe the plaintiffs have not shown sufficiently that residents of their proposed additional majority-minority district form a single community of interest.

Gorrell v. O'Malley, No. CIV. 11-2975, 2012 WL 226919, at *3-4 (D. Md. Jan. 19, 2012).

> A state "is free to recognize communities . . . [with] some common thread of relevant interests." Miller, 515 U.S. at 920. Gorrell relies on a 2001 GRAC regulation that states that "[t]o the extent permitted by federal case law, the [redistricting plan] should . . . give consideration to [] preserving identifiable communities of interest." ECF No. 6 ¶ 35. As the Court of Appeals of Maryland has recognized, preserving communities of interest is not constitutionally required, and "non-constitutional criteria cannot override the constitutional ones." In re Legislative Districting of State, 370 Md. 312, 322, 805 A.2d 292, 297 (2002). Although the preservation of communities of interest is a legitimate redistricting goal and is often used to justify the creation of a district that otherwise appears improper, "that this is a legitimate goal does not mean that there is an individual constitutional right to have one's particular community of interest contained within one congressional district." Graham v. Thornburgh, 207 F. Supp. 2d 1280, 1296 (D. Kan. 2002). . . . The plan's division of "obvious communities of interest," including farmers, raises questions about the wisdom of the plan, however, although preserving communities of interest is a "legitimate redistricting interest[]," it is not a requirement. Fletcher v. Lamone, No. 11-3220, 2011 WL 6740169, at *13 (D. Md. Dec. 23, 2011). . . . Because it alleges no constitutional violation, Gorrell's communities of interest claim will be dismissed with prejudice.

In re Legis. Districting, 805 A.2d 292, 297-98, 322 (Md. 2002).

Thus, so long as the plan does not contravene the constitutional criteria, that it may have been formulated in an attempt to preserve communities of interest, to promote regionalism, to help or injure incumbents or political parties, or to achieve other social or political objectives, will not affect its validity.... Specifically, we acknowledged the importance of natural and subdivision boundaries and rejected the argument that such things as the promotion of regionalism and the protection of non-official communities of interest could overcome that requirement. . . . In re Legislative Districting, 299 Md. at 681, 475 A.2d at 439-40 (footnotes omitted). Applying the requirement, we rejected an argument that it protected "communities of interest," a concept we found "nebulous and unworkable," pointing out that such communities, "involving concentrations of people sharing common interests," are virtually unlimited and admit of no reasonable standard. Id. at 692-93, 475 A.2d at 445-46. . . . Nor can the Court stretch the constitutional criteria in order to give effect to broader political judgments, such as the promotion of regionalism or the preservation of communities of interest. More basic, it is not for the Court to define what a community of interest is and where its boundaries are, and it is not for the Court to determine which regions deserve special consideration and which do not.

In re Legis. Districting, 805 A.2d 292, 330 n.2 (Md. 2002) (Raker, J., dissenting).

We have previously defined *communities of interest* as "identifiable concentrations of population which share one or more common interests." *In re Legislative Districting*, 299 Md. 658, 686 n.21, 475 A.2d 428, 442 n.21 (1982).

Legis. Redistricting Cases, 629 A.2d 646, 666 (Md. 1993).

Petitioners argue emphatically that these considerations were improper, given our opinion in the 1982 litigation that

[t]he ["due regard"] provision does not, in our view, encompass protection for a concept as nebulous and unworkable as "communities of interest," involving as it does concentrations of people sharing common interests. We think it apparent that the number of such communities is virtually unlimited and no reasonable standard could possibly be developed to afford them recognition in the formulation of districts within the required constitutional framework.

In re Legislative Districting, supra, 299 Md. at 692-93, 475 A.2d 428. Petitioners assert that the chairman's comments indicate that the GRAC deliberately jettisoned the mandatory "due regard" provision in favor of improper "communities of interest" and "regional interests" criteria. . . . We agree that the GRAC appears to have relied to some extent on improper non-legal criteria in formulating the City/Baltimore County region of the Governor's plan. We explicitly stated in 1982 that "communities of interest" are an unworkable basis on which to apportion districts.

In re Legis. Districting, 475 A.2d 428, 445 (Md. 1984).

The "due regard" provision, as we have heretofore explained, seeks to preserve well-recognized boundary lines to aid voters in orienting themselves to the territory of their districts. The provision does not, in our view, encompass protection for a concept as nebulous and unworkable as "communities of interest," involving as it does concentrations of people sharing common interests. We think it apparent that the number of such communities is virtually unlimited and no reasonable standard could possibly be devised to afford them recognition in the formulation of districts within the required constitutional framework.

MASSACHUSETTS

Merriam v. Sec'y of Commonwealth, 376 N.E.2d 838, 847 (1978).

The report states that "[w]herever possible and practical, under existing circumstances, then, the integrity of the various cities and towns has been maintained, and consideration has been given to the desire of localities in

multi-municipal representative districts to be grouped on a community of interest basis."

MICHIGAN

In re Apportionment of State Legislature, 486 N.W.2d 639, 649 (Mich. 1992).

State legislators are to represent their constituents. A legislator can perform that function only if there is some real community of interest among the represented group—without that, the legislator cannot speak effectively on the group's behalf.

In re Apportionment of State Legislature, 321 N.W.2d 585, 588 n.8 (Mich. 1982) (Levin, J. and Fitzgerald, J., concurring).

A county is kept more intact as a community of interest, and fewer special election districts must be created, when the minimum necessary number of cities or townships are shifted. There remained the possibility that two sets of cities or townships might satisfy the above rule; for example, each of two townships might contain the population required to be shifted. The Court again concluded that the concept of preserving counties as communities of interest to the fullest extent possible required that the township or set of townships with the fewest people necessary should be shifted.

MINNESOTA

Wattson v. Simon, No. A21-0243, 2021 WL 4173890, at *1 (Minn. 2021).

One traditional aspect of the redistricting process is preserving "communities of interest." See Ala. Legis. Black Caucus v. Alabama, 575 U.S. 254, 272 (2015) (describing respect for "communities defined by actual shared interests" as a "traditional" redistricting principle (quotation omitted)); see also Hippert v. Ritchie, No. A11-0152 (Minn. Special Redistricting Panel Nov. 4, 2011) (Order Stating Redistricting Principles and Requirements for Plan Submissions); Zachman v. Kiffmeyer, No. C0-01-160 (Minn. Special Redistricting Panel Dec. 11, 2001) (Order Stating Redistricting Principles and Requirements for Plan Submissions). Communities of interest have been defined to include, but are not limited to, groups of Minnesotans "with clearly recognizable similarities of social, geographic, political, cultural, ethnic, economic, or other interests." Hippert, No. A11-0152 (Minn. Special Redistricting Panel Nov. 4, 2011) (Order Stating Redistricting Principles and Requirements for Plan Submissions). Receiving information from members of the public is vital to identifying these communities.

Hippert v. Ritchie, 813 N.W.2d 374, 379 n.5 (Minn. Special Redistricting Panel 2012) (referring to communities of interest involving Native American Reservations, shared governmental services, neighborhoods, planning districts, minority populations, and geographical areas, such as the Iron Range Mountains, river valleys, and

flood protection); *cf.* Hippert v. Ritchie, 813 N.W.2d 391, 395 (Minn. Special Redistricting Panel 2012).

For purposes of this redistricting principle, "communities of interest" include, but are not limited to, groups of Minnesota citizens with clearly recognizable similarities of social, geographic, political, cultural, ethnic, economic, or other interests. *Hippert*, No. A11-152, at 9 (Minn. Special Redistricting Panel Nov. 4, 2011) (Order Stating Redistricting Principles and Requirements for Plan Submissions); *see also League of United Latin Am. Citizens v. Perry*, 548 U.S. 399, 433, 126 S. Ct. 2594, 2618, 165 L. Ed. 2d 609 (2006) (stating that maintaining communities of interest" is a traditional redistricting principle (quotation omitted)).

Ziols v. Rice Cnty. Bd. of Comm'rs, 661 N.W.2d 283, 289 (Minn. Ct. App. 2003).

The board here explicitly specified factors that it addressed, including that the districts be as contiguous as possible; that they be as regular and compact as practical, considering the geography of the county; that the board attempted to balance the social economic status of the districts; and that the board attempted to take into account communities of interest.

Final Order Adopting a Legislative Redistricting Plan at 4, 8 n.3, Zachman v. Kiffmeyer, No. C0-01-160, (Minn. Special Redistricting Panel Mar. 19, 2002), https://redistricting.lls.edu/wp-content/uploads/MN-zachman-20020319-state-leg-order.pdf.

Although this plan places primary importance on the integrity of political subdivisions, it also respects communities of interest in many areas of the state. . . . While it was not possible to preserve communities of interest in every instance, Senate District 9 and House Districts 9a and 9b exemplify a situation where the plan recognizes communities of interest at the expense of making every district neat and rectangular. . . . Detroit Lakes sought to be in the same senate district with Moorhead because their residents share jobs and other community resources. . . . We specifically reference these districts because they illustrate the frequent choices between accommodating communities of interest and creating tidy districts boundaries.

MISSISSIPPI

Smith v. Clark, 189 F. Supp. 2d 512, 527 (S.D. Miss.), order enforced, 189 F. Supp. 2d 548 (S.D. Miss. 2002), aff'd sub nom. Branch v. Smith, 538 U.S. 254 (2003), amended sub nom. Smith v. Hosemann, 852 F. Supp. 2d 757 (S.D. Miss. 2011).

While respecting county, city and precinct lines and compactness of each district, the court sought to give appropriate value to the following factors: that District 3 should include as much as possible of the currently existing districts 3 and 4; that growth areas, research universities and military bases should be placed in separate districts if otherwise practicable; that historical

and regional interests should be respected; that no incumbent should be required to move; and that travel distances within the districts be as minimal as possible, consistent with the other requirements.

Missouri

Pearson v. Koster, 367 S.W.3d 36, 70 (Mo. 2012) (Fischer, J., concurring).

In *Pearson I*, however, this Court determined that the Map was insufficient evidence; it does not inform as to population density, history or traditional communities of interests, or other circumstances the legislature may consider when drawing districts.

Johnson v. State, 366 S.W.3d 11, 30 (Mo. 2012).

The Supreme Court also identifies other factors that may justify variances, which this Court does not recognize, such as maintaining communities of interest and avoiding contests between incumbents.

NEVADA

Order Re: Redistricting at 3, Guy v. Miller, No. 11-OC-42-1B (Nev. Dist. Ct. Sept. 21, 2011), https://www.ncsl.org/Portals/1/Documents/Redistricting/NV_11-OC-00042-1B 2011-09-21 Order Re-Redistricting 20076.pdf.

[T]he Special Masters, to the extent practicable, shall draw districts to avoid dividing groups of common social (e.g. educational backgrounds, housing patterns), economic (e.g. income levels, living conditions), cultural, or language characteristics.

NEW HAMPSHIRE

Op. of the Justs., 191 A.3d 1245, 1257-58 (N.H. 2018).

The Supreme Court and other courts have repeatedly emphasized that insuring that those who are permitted to vote are bona fide residents who share a community of interest with other citizens of the jurisdiction is a legitimate concern of the highest order. *See, e.g., Dunn v. Blumstein*, 405 U.S. 330, 343-44, 92 S. Ct. 995, 31 L. Ed. 2d 274 (1972) (recognizing that "[a]n appropriately defined and uniformly applied requirement of bona fide residence may be necessary to preserve the basic conception of a political community, and therefore could withstand close constitutional scrutiny"); Insuring a community of interest among voters and residents promotes confidence in political outcomes and guards against a distortion of the political community.

City of Manchester v. Sec'y of State, 48 A.3d 864, 878 (N.H. 2012) (per curiam).

The Manchester petitioners contend that the Plan is unconstitutional because it does not reflect "community of interest" factors. They define a "community of interest" as "a group of people concentrated in a geographic area who share similar interests and priorities—whether social, cultural, ethnic, economic, religious, or political." (Quotation omitted.) Although they acknowledge that the State Constitution contains "proxies for community of interest," such as its requirement that districts contain contiguous towns, wards, and places and that the boundaries of towns, wards, and places be preserved, they do not contend that the Plan violates these proxies. . . . Nothing in the New Hampshire Constitution requires a redistricting plan to consider "communities of interest" as the Manchester petitioners define the concept. This phrase appears nowhere in the state constitutional provisions governing redistricting of the House, Part II, Articles 9, 11, and 11-a... Moreover, "[a]lthough preservation of communities of interest [may be] a legitimate redistricting goal and is often used to justify the creation of a district that otherwise appears improper, that this is a legitimate goal does not mean that there is an individual constitutional right to have one's particular community of interest contained within one [legislative] district." Gorrell v. O'Malley, Civil No. WDQ-11-2975, 2012 WL 226919, at *3 (D. Md. Jan. 19, 2012)

NEW JERSEY

Gonzalez v. State Apportionment Comm'n, 53 A.3d 1230, 1235-36 (N.J. App. Div. 2012).

At the Commission's March 10, 2011 public meeting, Rosenthal made a statement setting out the standards he would use to guide the redistricting process.... Other standards were "not legally specified" but Rosenthal thought that they "make sense from the standpoint of what I think the public interest is."... Rosenthal identified seven additional standards:... (4) recognition of "social, cultural, ethnic, and economic communities of interest":....

Brady v. N.J. Redistricting Comm'n, 622 A.2d 843, 856 (N.J. 1992).

Nevertheless, the shared interests of communities are determined not solely by the cartographer's line but also by historical, social, economic, and ethnic realities wholly divorced from the mapmaker's art. . . . We do not mean to discount county lines as a valid measure of community of interest, for certain benefits and burdens of county citizenship do provide a common bond.

Davenport v. Apportionment Comm'n, 319 A.2d 718, 727-28, 730 (N.J. 1974) (Pashman, J., dissenting).

This State has also realized the importance of treating citizens of the same county as a unified political group and the advantages gained thereby when

Chief Justice Weintraub in *Jackman v. Bodine*, 43 N.J. 453, 462-63, 205 A.2d 713, 718 (1964) stated:

The citizens of each county have a community of interest by virtue of their common responsibility to provide for public needs and their investment in the plants and facilities established to that end. Anciently, and still today, the counties reflect different economic interests, although of course these economic interests are not perfectly contained or separated by any political line, municipal, county or State. So, certain counties have a dominant concern with manufacturing and commerce; others have a large stake in agriculture; still others lean heavily upon the resort industry; and finally a few counties have a special interest in the products of the sea. And of course there may be competing area interests in such matters as highways, taxation, and water supply. . . .

As seen from the federal cases, the community of interest analysis, which was always a moving factor in this State until *Scrimminger*, *supra*, has rejoined the rational state policy arguments supporting a greater voting population deviation. . . . Compactness is not a political concept, but a constitutional tool to better facilitate and guarantee that a community of interest is represented properly.

Jackman v. Bodine, 205 A.2d 713, 718 (N.J. 1964) [See quote id.].

NEW MEXICO

Maestas v. Hall, 274 P.3d 66, 78 (N.M. 2012) (dissent recognizes Native American communities of interest).

We interpret communities of interest to include a contiguous population that shares common economic, social, and cultural interests which should be included within a single district for purposes of its effective and fair representation. *See O'Sullivan*, 540 F. Supp. at 1204.

NEW YORK

People ex rel. Baird v. Kings Cnty. Sup'rs, 33 N.E. 827, 830 (N.Y. 1893).

There was, too, a certain community of interest among the inhabitants of a county.

NORTH CAROLINA

Dickson v. Rucho, 781 S.E.2d 404, 413, 431 (N.C. 2015), opinion modified on denial of reh'g, 789 S.E.2d 436 (N.C. 2016), vacated, 137 S. Ct. 2186 (2017).

In addition, the General Assembly followed the mandatory framework of our decision in *Stephenson I*, which harmonized the requirements of federal

and state law and set out nine criteria that the General Assembly must follow in drawing new district lines. 355 N.C. at 383-84, 562 S.E.2d at 396-97. These nine criteria may be summarized as follows: Seventh, "communities of interest should be considered in the formation of compact and contiguous [legislative] districts." Id. at 384, 562 S.E.2d at 397. . . . Within this mandatory framework, the General Assembly may consider permissible and traditional redistricting principles such as compactness, contiguity, and respect for political subdivisions and communities of interest. See Miller v. Johnson, 515 U.S. 900, 916, 115 S. Ct. 2475, 2488, 132 L. Ed. 2d 762, 779-80 (1995). . . . Vera, 517 U.S. at 977, 116 S. Ct. at 1960, 135 L. Ed. 2d at 268 (internal citations omitted). Thus, while a State does not have a free hand when crafting districts with the intent of avoiding section 2 liability. the Supreme Court has acknowledged that "[a] § 2 district that is reasonably compact and regular, taking into account traditional districting principles such as maintaining communities of interest and traditional boundaries, may pass strict scrutiny without having to defeat rival compact districts designed by plaintiffs' experts in endless 'beauty contests." Id. at 977, 116 S. Ct. at 1960, 135 L. Ed. 2d at 269.

Dickson v. Rucho, 766 S.E.2d 238, 258 (N.C. 2014), vacated, 575 U.S. 959 (2015).

This Court has set out nine criteria for ensuring that House and Senate districts satisfy both the Whole County Provision and the Voting Rights Act. *Stephenson I*, 355 N.C. at 383-84, 562 S.E.2d at 396-97. These criteria may be summarized as follows: Seventh, "communities of interest should be considered in the formation of compact and contiguous [legislative] districts."

Stephenson v. Bartlett, 562 S.E.2d 377, 397 (N.C. 2002).

The intent underlying the WCP [whole county provision] must be enforced to the maximum extent possible; thus, only the smallest number of counties necessary to comply with the at or within plus or minus five percent "one-person, one-vote" standard shall be combined, and communities of interest should be considered in the formation of compact and contiguous electoral districts.

Shaw v. Hunt, 517 U.S. 899, 907 (1996).

Race was the criterion that, in the State's view, could not be compromised; respecting communities of interest and protecting Democratic incumbents came into play only after the race-based decision had been made.

Shaw v. Hunt, 517 U.S. 899, 938, 950 (1996) (Stevens, J., dissenting).

A deliberate effort to consolidate urban voters in one district and rural voters in another also explains District 12's highly irregular shape. Before District 12 had been drawn, members of the public as well as legislators had

urged that "the observance of distinctive urban and rural communities of interest should be a prime consideration in the general redistricting process." . . . In dramatic contrast, the Court today rejects North Carolina's plan because it does not provide the precise remedy that might have been ordered by a federal court, even though it satisfies potential plaintiffs, furthers such race-neutral legislative ends as incumbency protection and the preservation of distinct communities of interest, and essentially serves to insulate the State from a successful statutory challenge.

OKLAHOMA

In re Initiative Petition No. 426, State Question No. 810, 465 P.3d 1259, 1267 (Okla. 2020).

C. The gist statement's short mention of redistricting criteria is sufficient. Section 4(D)(1)(c) of IP 426 provides: c. The Commission shall also seek to maximize compliance with each of the following criteria, set forth in the following order of priority:

i. Communities of Interest. Districts shall minimize the division of communities of interest to the extent practicable. A Community of Interest is defined as an area with recognized similarities of interests, including but not limited to racial, ethnic, economic, social, cultural, geographic, tribal, linguistic, or historic identities. Communities of interest shall not include common relationships with political parties, officeholders, or political candidates.

In re Initiative Petition No. 426, 465 P.3d 1244, 1251 (Okla. 2020).

Unlike congressional districts, the basis for preventing the ills of malapportionment on the state and local level is found in the Equal Protection Clause of the Fourteenth Amendment to the United States Constitution. The Supreme Court first held, in *Baker v. Carr*, that state legislative apportionment challenges were justiciable under the Fourteenth Amendment and would no longer be perceived as non-justiciable political questions. 369 U.S. 186, 237, 82 S. Ct. 691, 7 L. Ed. 2d 663 (1962). When drawing state and local legislative districts, jurisdictions are permitted to deviate somewhat from perfect population equality. *Evenwel v. Abbott*, — U.S. —, 136 S. Ct. 1120, 1124, 194 L. Ed. 2d 291 (2016). This may be done to accommodate traditional districting objectives, among them, preserving the integrity of political subdivisions, maintaining communities of interest, and creating geographic compactness.

Alexander v. Taylor, 51 P.3d 1204, 1211 (Okla. 2002), as corrected (June 27, 2002).

Widely recognized "neutral redistricting criteria" may be considered. . . . Included among these criteria are: (1) preserving cores of existing districts, or communities of interest;

OREGON

Sheehan v. Or. Legis. Assembly, 499 P.3d 1267, 1269 (Or. 2021) (considered maintaining University community, school district, drainage basin, transportation links, including major roads, bus routes, and biking and walking trails).

The legislature has also enacted statutes pertinent to reapportionment of both legislative and congressional districts. ORS 188.010 sets out criteria that the legislature (or Secretary of State, if applicable) "shall consider":

- "(1) Each district, as nearly as practicable, shall: . . .
- "(d) Not divide communities of common interest;"

Fletchall v. Rosenblum, 442 P.3d 193, 197 (Or. 2019).

Most notably, IP 5 would (1) establish the above-mentioned "compactness" requirement, which does not exist in the present reapportionment scheme; (2) expressly permit a small amount of inequality between the populations of districts ("equal within a range of two percent") that is not expressly permitted under current law; and (3) omit the present statutory requirement that each district "not divide communities of common interest." ORS 188.010(1)(d).

Hartung v. Bradbury, 33 P.3d 972, 980 (Or. 2001) (considering criteria including television stations, geographic, agriculture, timber, and ethnicity).

The Legislative Assembly also has directed the Secretary of State to promulgate rules regarding reapportionment. ORS 188.015. He has done so. Of particular relevance is OAR 165-008-0060, which provides:

"(b) 'Not divide communities of common interest.' Where urban neighborhoods, rural communities or other communities can be identified, an effort will be made to retain that community within a single district. Consideration will be given to market areas covered by local media;"

Linder v. Keisling, 821 P.2d 1089, 1090 (Or. 1991) (Fadeley, J., concurring in part and dissenting in part).

The statute, ORS 188.010(1), provides:

"The Legislative Assembly or the Secretary of State, whichever is applicable, shall consider the following criteria when apportioning the state into congressional and legislative districts: . . .

"(d) Not divide communities of common interest"

Ater v. Keisling, 819 P.2d 296, 301 & n.7 (Or. 1991).

Before holding a series of 15 public hearings around the state, the Secretary adopted eight guidelines to be followed in drafting the reapportionment. The guidelines are:

"3. Retain identified urban neighborhoods, rural communities, and other communities of interest within a single district, giving consideration to market areas covered by local media."...

This decision was based in part on the advice of the Attorney General, who wrote to the Secretary as follows:

"The court may very well find that some sacrifice in population equality was necessary in order to achieve one of the other goals (such as maintaining communities of interest or geographic or political boundaries)."

PENNSYLVANIA

League of Women Voters v. Commonwealth, 178 A.3d 737, 775, 777 (Pa. 2018), cert. denied sub nom. Turzai v. Brandt, 139 S. Ct. 445 (2018).

Dr. Kennedy testified that he analyzed the 2011 Plan "to see how it treated communities of interest," When asked specifically about the 2011 Plan, Dr. Kennedy opined that the 2011 Plan "negatively impacts Pennsylvania's communities of interest to an unprecedented degree and contains more anomalies than ever before." . . . The court noted, however, that Dr. Chen's testimony "failed to take into account the communities of interest when creating districting plans," The Court found Dr. Pegden's testimony to be credible; however, it noted that, like Dr. Chen's testimony, his testimony did not take into account "other districting considerations, such as not splitting municipalities, communities of interest,"

League of Women Voters v. Commonwealth, 178 A.3d 737, 828 (Pa. 2018), *cert. denied sub nom.* Turzai v. Brandt, 139 S. Ct. 445 (2018) (Baer, J., concurring in part and dissenting in part).

I do not view, however, the utilization of traditional districting criteria as dispositive in every redistricting case. A map may fail to satisfy all of the traditional criteria and yet pass constitutional muster under the Free and Equal Election Clause, such as where a district is less compact due to a dispersed community of interest. . . . As occurred here, a petitioner may establish that partisan considerations predominated in the drawing of the map by, *inter alia*, introducing expert analysis and testimony that the adopted map is a statistical outlier in contrast with other maps drawn utilizing traditional districting criteria and that the adopted map was not the product of other legitimate districting considerations such as the need to protect communities of interest or promote other interests relevant to the voting community.

League of Women Voters v. Commonwealth, 178 A.3d 737, 832 (Pa. 2018), cert. denied sub nom. Turzai v. Brandt, 139 S. Ct. 445 (2018) (Saylor, C.J., dissenting).

Significantly, such additional factors include other traditional districting criteria appropriate to political consideration—such as the preservation of

communities of interest, avoidance of pitting incumbents against each other, and maintenance of the core of prior district lines. *See League of Women Voters*, — Pa. at —, 175 A.3d at 284 (Saylor, C.J., dissenting) (citing *Evenwel v. Abbott*, — U.S. —, 136 S. Ct. 1120, 1124, 194 L. Ed. 2d 291 (2016), *Karcher v. Daggett*, 462 U.S. 725, 740, 103 S. Ct. 2653, 2663, 77 L. Ed. 2d 133 (1983), and *Holt v. 2011 Legislative Reapportionment Comm'n*, 620 Pa. 373, 422-23, 67 A.3d 1211, 1241 (2013)).

League of Women Voters of Pa. v. Commonwealth, 175 A.3d 282, 286 (Pa. 2018) (Saylor, C.J., dissenting).

Federal and state courts also appreciate the propriety of preserving communities of interest which may not overlap with political subdivision lines. *See, e.g., Evenwel v. Abbott,* — U.S. —, 136 S. Ct. 1120, 1124, 194 L. Ed. 2d 291 (2016); *Holt v. 2011 Legislative Reapportionment Comm'n*, 620 Pa. 373, 422-23, 67 A.3d 1211, 1241 (2013).

Holt v. 2011 Legis. Reapportionment Comm'n, 67 A.3d 1211, 1241 (2013).

Finally, in measuring the apparent strengths of the 2012 Final Plan against the probative value of alternate plans with fewer subdivision splits, we do not discount that redistricting efforts may properly seek to preserve communities of interest which may not dovetail precisely with the static lines of political subdivisions. Dean Gormley, whose hands-on experience and writings in this area proved helpful to the Court in *Holt I*, made the following point concerning communities of interest in a law review article that we cited with approval in *Holt I*:

At the same time, states have historically considered a broad range of such imprecise communities of interest (many of which are naturally intertwined) in exercising their sound discretion. They do so to satisfy constituents. They do so to sweep together a host of generally identifiable interest groups that wish to be given a unified voice. . . .

Holt I, 38 A.3d at 746 (quoting Gormley, Racial Mind-Games and Reapportionment, 4 U. Pa. J. Const. L. 735, 780-81 (2002)). Accord Holt I, 38 A.3d at 745 (noting that constitutional restrictions in Section 16 "recognize that communities indeed have shared interests for which they can more effectively advocate when they can act as a united body and when they have representatives who are responsive to those interests.").

Holt v. 2011 Legis. Reapportionment Comm'n, 38 A.3d 711, 745-46 (Pa. 2012).

Moreover, the restrictions recognize that communities indeed have shared interests for which they can more effectively advocate when they can act as a united body and when they have representatives who are responsive to those interests. In an article concerning racial issues presented in redistricting cases, Dean Gormley has explained the importance of the restrictions, as follows:

The fundamental districting principles that the [U.S. Supreme] Court has deemed legitimate over the years include, but are not limited to, "compactness, contiguity, and respect for political subdivisions or communities defined by actual shared interests " The final principle mentioned is particularly important in the voting rights context. Historically, reapportionment bodies have considered "communities of interest" as one legitimate factor in drawing fair and politically sensitive districts. A redistricting body need not draw rigid squares of equal population; in fact, few states do so. Rather, redistricting bodies traditionally take into account a host of intangible communities, seeking to give them, where practicable, a voice in the government without unduly fracturing that voice. Thus, school districts, religious communities, ethnic communities, geographic communities which share common bonds due to locations of rivers, mountains and highways, and a host of other "communities of interest" are routinely considered by districting bodies in order to construct fair and effective maps. Shared racial background, along with political affiliation, ethnic identity, religious affiliation, occupational background, all can converge to create bona fide communities of interest, to the extent that the redistricting body makes an honest effort to draw lines around geographically compact groups in order to give them a voice in the governmental process. As a practical matter, it is rare that a reapportionment body is able (or desires) to wholly capture a "community of interest" and draw lines around it, in a fashion that perfectly isolates it into a circle or square. In reality, communities of interest are elusive, imprecise entities. Reapportionment bodies and lower courts must be cautious when it comes to this concept, particularly where it serves as a basis for creating legislative districts tied to race, because it has the potential for abuse. Specifically, it can be used as a ruse to engage in improper maximization of majorityminority districts where no real communities exist. At the same time, states have historically considered a broad range of such imprecise communities of interest (many of which are naturally intertwined) in exercising their sound discretion. They do so to satisfy constituents. They do so to sweep together a host of generally identifiable interest groups that wish to be given a unified

Gormley, *Racial Mind-Games and Reapportionment*, 4 U. Pa. J. Const. L. 735, 779-81 (2002) (footnotes omitted).

Albert v. 2001 Legis. Reapportionment Comm'n, 790 A.2d 989, 999 (Pa. 2002).

The appellants urge us to consider the "homogeneity" and "shared interests" of a community as guidelines. We believe that these concepts are too elastic and amorphous, however, to serve as a judicial standard for assessing the reapportionment process. As the appellants' arguments indicate, these con-

cepts often reflect nothing more than continuation of the pre-existing legislative districts. Should community interests be fostered merely by residing in the same district, we have no reason to believe that the current reapportionment of the legislative districts will not achieve this result with the passage of time.

Mellow v. Mitchell, 607 A.2d 204, 206 (Pa. 1992).

Slight departures from mathematical perfection have been justified by the federal courts only to advance the cause of equality in the following respects: avoiding fragmentation of local government territories and the splitting of election precincts; effectuating adequate representation of a minority group; creating compact and contiguous districts; maintaining relationships of shared community interests; and not unduly departing from the useful familiarity of existing districts.

RHODE ISLAND

Parella v. Irons, No. CIV.A. 02-4578, 2003 WL 22389806, at *3, 15, 17-19 (R.I. Super. Ct. Oct. 8, 2003), *aff'd sub nom. Parella v. Montalbano*, 899 A.2d 1226 (R.I. 2006).

Communities of interest, as defined by Professor Profughi, "reflect commonalities" between individuals. Using information compiled from census data, Professor Profughi looked at socioeconomic indicators of the portions of the municipalities in the East Bay districts to determine if there were communities of interest. The variables reviewed included: owner-occupied housing; minor children in household; households with adults over the age of sixty-five; whether or not one is a native Rhode Islander; whether or not one is a foreign-born individual; amount of bachelor and graduate degrees; median income; and percentage below poverty lines. In his opinion, those variables are sufficient to make an effective determination of communities of interest; although, he conceded that many of the differences were not necessarily significant differences. . . .

B. Additional Findings of Fact by the Court after Trial

19. An elected representative can represent different cities and towns within the district and different communities of interest within the district and still be effective. . . . 27. Contiguity, geographic and functional compactness, population, socioeconomic factors, municipal boundary lines, neighborhoods, geography, communities of interest and district associations are all relevant considerations in redistricting. . . .

Given the qualitative, but limited, approach that a court must take in reviewing this constitutional challenge, a court must review factors that make a challenge capable of meaningful review. Contiguity, political gerrymandering, and communities of interest, as well as geographical, natural, historical, and political boundary concerns, are factors a court may consider in reviewing a compactness challenge.

TEXAS

League of United Latin Am. Citizens v. Perry, 548 U.S. 399, 424, 432, 435 (2006).

The Latino communities at the opposite ends of District 25 have divergent "needs and interests," *id.* at 502, owing to "differences in socio-economic status, education, employment, health, and other characteristics," *id.* at 512... The Latinos in the Rio Grande Valley and those in Central Texas, it found, are "disparate communities of interest," with "differences in socio-economic status, education, employment, health, and other characteristics."... We emphasize it is the enormous geographical distance separating the Austin and Mexican-border communities, coupled with the disparate needs and interests of these populations—not either factor alone—that renders District 25 noncompact for § 2 purposes.

Perry v. Del Rio, 67 S.W.3d 85, 93-94 (Tex. 2001).

Court-ordered redistricting cases require close scrutiny of several important factors and interests, including: compactness, regularity, contiguity, preservation of communities of interest, equal protection, and the integrity of natural and traditional county and city boundaries. *See generally Bush v. Vera*, 517 U.S. 952, 116 S. Ct. 1941, 135 L. Ed. 2d 248 (1996). Therefore, it is imperative in these cases that a court's procedures protect all interests involved.

Perry v. Del Rio, 67 S.W.3d 85, 97 (Tex. 2001) (Owen, J., concurring).

The only other reason for modifications to Plan 1065C identified by the proponent of what came to be Plan 1089C was that particular areas should retain their rural or suburban "character" or similarly, to "restore communities of interest." These, too, are political considerations that have no bearing on compactness, the boundaries of political subdivisions, or compliance with the Voting Rights Act. When courts must step in and fashion a redistricting plan, their task is a "sensitive one that must be . . . free from any taint of arbitrariness or discrimination." A plan that draws on political factors such as "communities of interest" is tainted.

Bush v. Vera, 517 U.S. 952, 964 (1996).

And the appellants point to evidence that in many cases, race correlates strongly with manifestations of community of interest (for example, shared broadcast and print media, public transport infrastructure, and institutions such as schools and churches) For example, a finding by a district court that district lines were drawn in part on the basis of evidence (other than racial data) of where communities of interest existed might weaken a plaintiff's claim that race predominated in the drawing of district lines. *Cf. post*, at 2000 (Souter, J., dissenting) (recognizing the legitimate role of communities of interest in our system of representative democracy).

Bush v. Vera, 517 U.S. 952, 1026, 1048 (1996) (Souter, J., dissenting).

To the extent that the presence of obvious communities of interest among members of a district explicitly or implicitly guided the shape of District 30, it amounts to an entirely legitimate nonracial consideration. . . . We have thus accorded substantial respect to such traditional principles (as those, for example, meant to preserve the integrity of neighborhood communities, to protect incumbents, to follow existing political boundaries, to recognize communities of interest, and to achieve compactness and contiguity); we have seen these objectives as entirely consistent with the Fourteenth and Fifteenth Amendments' demands.

VERMONT

In re Reapportionment of Towns of Hartland, Windsor & W. Windsor, 624 A.2d 323, 340, 342, 344 (Vt. 1993).

On the other hand, the master found that there is a network of roads connecting the two communities, that both communities have large commercial areas which serve residents from both towns, that many residents from each community work in the other community, that there are state offices in each community that serve the residents of both communities, that the regional hospital and airport serve both communities, that both Berlin and Barre are members of the Central Vermont Regional Planning Commission and the Central Vermont Waste District, and that the governing bodies of both municipalities are currently meeting to address common issues and problems. . . . The three towns form a geographically compact and contiguous district and are in the same transportation district. Shrewsbury is separated by mountains from Plymouth but has ready access by highway to Ludlow and through Ludlow to Plymouth. Further, there is a seasonal road directly to Plymouth, and the two communities share a common recreational area. . . . Nevertheless, the direct route over the mountains to Newport is difficult during the winter, and, consequently, the ties between Richford and towns in Orleans or Essex counties are minimal. Further, as noted, the weekly and daily newspapers of Franklin and Orleans counties generally do not cover local events outside their own county.

VIRGINIA

Vesilind v. Va. State Bd. of Elections, 813 S.E.2d 739, 749 (Va. 2018).

Delegate Jones testified to his spatial and political assessment of compactness, which included consideration of geographic size, ease of travel and representation, and communities of interest.

Wilkins v. West, 571 S.E.2d 100, 109, 115 (Va. 2002).

In addition, traditional redistricting elements not contained in the statute, such as preservation of existing districts, incumbency, voting behavior, and communities of interest, are also legitimate legislative considerations. [Jamerson v. Womack] 423 S.E.2d at 183-84.... The record shows however, that these districts also were drawn with attention to such factors as population equalization, compactness and contiguity, retention of core districts where possible, and enhancement of communities of political interest.

Jamerson v. Womack, 423 S.E.2d 180, 184 (Va. 1992).

And, in a later reapportionment case, we said that the policy of recognizing communities of interest was not one spelled out in the Constitution. *Wilkins v. Davis*, 205 Va. 803, 810, 139 S.E.2d 849, 853 (1965).

Jamerson v. Womack, No. HB-880, 1991 WL 835368, at *1-3 (Va. Cir. Ct. Dec. 11, 1991), *aff'd*, 423 S.E.2d 180 (Va. 1992).

The evidence showed that the legislature properly considered compactness, contiguity, and community of interest in the redistricting process. These criteria were adopted by the Senate Privileges and Elections Committee ("the P&E Committee") in Resolution No. 1 as proper factors to consider in guiding the legislative process, and these criteria were the subject of debate in the General Assembly which adopted the contested reconfiguration. Resolution No. 1 set forth the following hierarchy of criteria for the redistricting: (1) equal representation, (2) minority representation, (3) compactness, (4) contiguity, and (5) political fairness. The same Resolution also listed communities of interest as being a (subordinate) consideration. In configuring the new districts, the legislature properly gave great weight to achieving equal representation and effective minority representation. There can be no question that these considerations far outweigh considerations relating solely to community of interests. Cf. Wilkins v. Davis, 205 Va. 803 (1965) (although communities of interests have traditionally been considered in redistricting, the constitution does not require the legislature to consider them). . . . To the extent that the Petitioners' evidence invited the Court to determine compactness by reference to socio-economic and historical considerations, the Court will not evaluate compactness by such criteria. To do so would import the criteria of community of interests into the question, without any precedent applicable to Virginia law.

Wilkins v. Davis, 139 S.E.2d 849, 856 (Va. 1965).

It is the duty of the General Assembly of Virginia to reapportion the congressional districts of Virginia so that each district shall be composed of contiguous and compact territory, containing as nearly as practicable an equal number of inhabitants, and, so far as can be done without impairing the essential requirement of substantial equality in the number of inhabitants among the districts, give effect to the community of interest within the districts.

Brown v. Saunders, 166 S.E. 105, 108 (Va. 1932).

From the early history of Virginia, even in colonial days, the community of interests in the respective counties has been recognized, and in no division of the state for any governmental purpose has any county line been broken.

WASHINGTON

Kilbury v. Franklin Cnty. ex rel. Bd. of Cnty. Comm'rs, 90 P.3d 1071, 1074, 1076 (Wash. 2004).

The Local Government Redistricting Statute.... The statute provides that the newly drawn redistricting plan must "be consistent with" five criteria:....

(e) To the extent feasible and if not inconsistent with the basic enabling legislation for the . . . county . . ., the district boundaries shall coincide with existing recognized natural boundaries and shall, to the extent possible, preserve existing communities of related and mutual interest. . . .

Similarly, RCW 29.70.100(4)(e) necessarily requires the local government to exercise considerable discretion to ensure that, "[t]o the extent feasible" and "to the extent possible," the district boundaries "coincide with existing recognized natural boundaries" and "preserve existing communities of related and mutual interest."

Snyder v. Munro, 721 P.2d 962, 964 (Wash. 1986).

There is a statutory declaration of legislative intent that districts 19 and 39 were split "to provide better representation by protecting the community of interest in rural and urban areas in these districts." RCW 44.07B.009 (1981).

WEST VIRGINIA

State ex rel. Cooper v. Tennant, 730 S.E.2d 368, 395 (W. Va. 2012).

The Legislature "[a]lso [took] into account in crossing county lines, to the extent feasible, the community of interests of the people involved." W. Va. Code § 1-2-1(c)(5).

WISCONSIN

Johnson v. Wis. Elections Comm'n, 967 N.W.2d 469, 483-84 (2021)

Not only is a right to proportional party representation nonexistent in either constitution but the theory conflicts with principles that *are* constitutionally protected. The theory is irreconcilable with the requirement that congressional and state legislative districts be single-member districts. *See* 2 U.S.C.

§ 2c; Wis. Const. art. IV, §§ 4-5. For state legislative districts, the theory is particularly ill suited because Article IV of the Wisconsin Constitution specifies requirements that favor the preservation of communities of interest, irrespective of individual partisan alignment. See Wis. Const. art. IV, §§ 4-5 (explaining state assembly districts must be compact, contiguous, and respect political boundary lines and state senate districts must be contiguous and not divide assembly districts in their formation); Prosser, 793 F. Supp. at 863 (stating there is a "correlation between geographical propinquity and community of interest, and therefore compactness and contiguity are desirable features in a redistricting plan"). . . . A proportional party representation requirement would effectively force the two dominant parties to create a "bipartisan" gerrymander to ensure the "right" outcome—obliterating many traditional redistricting criteria mandated by federal law and Article IV of the Wisconsin Constitution. See 2 U.S.C. § 2c; Wis. Const. art. IV, §§ 4-5. Democrats tend to live close together in urban areas, whereas Republicans tend to disperse into suburban and rural areas. See Baumgart, 2002 WL 34127471, at *6 ("Wisconsin Democrats tend to be found in high concentrations in certain areas[.]"). As a result, drawing contiguous and compact single-member districts of approximately equal population often leads to grouping large numbers of Democrats in a few districts and dispersing rural Republicans among several. These requirements tend to preserve communities of interest, but the resulting districts may not be politically competitive—at least if the competition is defined as an interrather than intra-party contest.

Baldus v. Members of Wis. Gov't Accountability Bd., 849 F. Supp. 2d 840, 850, 856-57 (E.D. Wis. 2012) (per curiam).

> Accepted justifications include: core retention; avoidance of split municipalities; contiguity; compactness; and maintenance of communities of interest. . . . This is where our earlier observations about community of interest come back into play. The evidence shows that the new lines for Districts 8 and 9 will be disruptive to the Latino community of interest.

La Crosse Cnty. v. City of La Crosse, 322 N.W.2d 531, 534 n.4 (Wis. Ct. App. 1982).

Wisconsin Stat. Ann. sec. 5.15(1)(b) (West 1981 pocket part), n.1, supra, directs municipalities to take "community of interest" factors into account in establishing local wards. Wisconsin Stat. Ann. sec. 59.03(3)(b) (West 1981 pocket part) does not impose this rule on counties, although it does direct them to put whole contiguous municipalities or parts of a municipality within the same district whenever possible.

City of Janesville v. Rock Cnty., 319 N.W.2d 891, 893 n.1 (Wis. Ct. App. 1982).

Section 5.02(25), Stats., defines a "ward" as "a town, village or city subdivision created for the convenience of the electors therein and to facilitate the division of such municipalities into election districts of substantially equal population numbers along common boundaries observing the community of interest of existing neighborhoods and other settlements."

State ex rel. Lamb v. Cunningham, 53 N.W. 35, 63 (Wis. 1892) (Winslow, J., dissenting).

With regard to such instances, it is clear to me that the legislative discretion is a wide one as to numbers; that they may consider things such as the community of interest, facility of communication, the general topography, the rapidity with which population is increasing, and many other things which this court cannot know, and with which it has nothing to do.

APPENDIX C: COMMUNITIES OF INTEREST CONSTITUTIONS, STATUTES, GUIDELINES

ALABAMA (Congressional, Legislative)

PERMANENT LEGIS. COMM. ON REAPPORTIONMENT, REAPPORTIONMENT COMMITTEE REDISTRICTING GUIDELINES 2-3 (Ala. 2021), http://www.legislature.state.al.us/aliswww/reapportionment/Reapportionment%20Guidelines%20for%20Redistricting.pdf.

- j. The following redistricting policies are embedded in the political values, traditions, customs, and usages of the State of Alabama and shall be observed to the extent that they do not violate or subordinate the foregoing policies prescribed by the Constitution and laws of the United States and of the State of Alabama:
- (iii) Districts shall respect communities of interest, neighborhoods, and political subdivisions to the extent practicable and in compliance with paragraphs a through i. A community of interest is defined as an area with recognized similarities of interests, including but not limited to, ethnic, racial, economic, tribal, social, geographic, or historic identities. The term communities of interest may, in certain circumstances, include political subdivisions such as counties, voting precincts, municipalities, tribal lands and reservations, or school districts. The discernment, weighing, and balancing of the varied factors that contribute to communities of interest is an intensely political process best carried out by elected representatives of the people.

ALASKA (Legislative)

ALASKA CONST. art. VI, § 6.

Each house district shall be formed of contiguous and compact territory containing as nearly as practicable a relatively integrated socio-economic area.

ARIZONA (Congressional, Legislative)

ARIZ. CONST. art. IV, Pt. 2 § 1(14)D.

District boundaries shall respect communities of interest to the extent practicable;

ARKANSAS (Legislative)

Redistricting Standards and Requirements, ARK. BD. OF APPORTIONMENT, https://ar-kansasredistricting.org/about-the-process/redistricting-criteria-2/ (last visited Jan. 11, 2022).

Maintaining Communities of Interest where possible: Preservation of communities of interest describes the goal of maintaining a group of people in a specific geographic area where those individuals share common interests. These interests may be economic, social, cultural, residential (rural vs. urban), ethnic, military, religious or political in nature.. As an example, a redistricting plan may consider keeping all of a military base in one district.

Redistricting Criteria and Goals, ARK. BD. OF APPORTIONMENT, https://arkansasredistricting.org/about-the-process/redistricting-criteria-and-goals/ (last visited Jan. 11, 2022).

Communities of interest: commonalities of economical, social, political, cultural, ethnic, or religious interests.

CALIFORNIA (Congressional, Legislative)

CAL. CONST. art. XXI, § 2(d)(4).

The geographic integrity of any city, county, city and county, local neighborhood, or local community of interest shall be respected in a manner that minimizes their division to the extent possible without violating the requirements of any of the preceding subdivisions. A community of interest is a contiguous population which shares common social and economic interests that should be included within a single district for purposes of its effective and fair representation. Examples of such shared interests are those common to an urban area, a rural area, an industrial area, or an agricultural area, and those common to areas in which the people share similar living standards, use the same transportation facilities, have similar work opportunities, or have access to the same media of communication relevant to the election process. Communities of interest shall not include relationships with political parties, incumbents, or political candidates.

COLORADO (Congressional, Legislative)

COLO. CONST. art. V, § 44(3)(b) (Congressional) and § 46(3)(b) (Legislative).

- (I) "Community of interest" means any group in Colorado that shares one or more substantial interests that may be the subject of [federal/state] legislative action, is composed of a reasonably proximate population, and thus should be considered for inclusion within a single district for purposes of ensuring its fair and effective representation.
- (II) Such interests include but are not limited to matters reflecting:
- (A) Shared public policy concerns of urban, rural, agricultural, industrial, or trade areas; and

- (B) Shared public policy concerns such as education, employment, environment, public health, transportation, water needs and supplies, and issues of demonstrable regional significance.
- (III) Groups that may comprise a community of interest include racial, ethnic, and language minority groups, subject to compliance with subsections (1)(b) and (4)(b) of section [44.3/48.1] of this article V, which subsections protect against the denial or abridgement of the right to vote due to a person's race or language minority group.
- (IV) "Community of interest" does not include relationships with political parties, incumbents, or political candidates.

COLO. CONST. art. V, § 44.3(2)(a) (Congressional).

As much as is reasonably possible, the commission's plan must preserve whole communities of interest and whole political subdivisions, such as counties, cities, and towns.

COLO. CONST. art. V, § 48.1(2)(a) (Legislative).

As much as is reasonably possible, the commission's plan must preserve whole communities of interest and whole political subdivisions, such as counties, cities, and towns. To facilitate the efficient and effective provision of governmental services, with regard to any county, city, city and county, or town whose population is less than a district's permitted population, the commission shall presume that such county, city, city and county, or town should be wholly contained within a district; except that a division of such county, city, city and county, or town is permitted where, based on a preponderance of the evidence in the record, a community of interest's legislative issues are more essential to the fair and effective representation of residents of the district.

GEORGIA (Congressional, Legislative)

S. REAPPORTIONMENT COMM., 2021 COMMITTEE GUIDELINES (Ga. 2021), https://www.legis.ga.gov/api/document/docs/default-source/reapportionment-document-library/2021-senate-redistricting-committee-guide-

lines.pdf?sfvrsn=a9bbb991_2; H. REAPPORTIONMENT COMM., 2021-2022 GUIDELINES FOR THE HOUSE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT COMMITTEE (Ga. 2021), https://www.legis.ga.gov/api/document/docs/default-source/reapportionment-document-library/2021-2022-house-reapportionment-committee-guidelines.pdf?sfvrsn=f1b4cc44 2.

III.A.7. The Committee should consider:

- a. The boundaries of counties and precincts;
- b. Compactness: and
- c. Communities of interest.

HAWAII (Congressional, Legislative)

HAW. CONST. art. IV, § 6; HAW. REV. STAT. § 25-2(b)(6) (2021).

Where practicable, submergence of an area in a larger district wherein substantially different socio-economic interests predominate shall be avoided.

IDAHO (Congressional, Legislative)

IDAHO CODE § 72-1506(2) (2021).

To the maximum extent possible, districts shall preserve traditional neighborhoods and local communities of interest.

KANSAS (Congressional, Legislative)

KAN. OFF. OF REVISOR OF STATUTES, PROPOSED GUIDELINES AND CRITERIA FOR 2022 KANSAS CONGRESSIONAL AND STATE LEGISLATIVE REDISTRICTING 1-2 (2021), http://www.kslegislature.org/li/b2021_22/committees/misc/proposedguidelinesand-criteriafor2022congressionalandstatelegislativeredistricting.pdf.

State Legislative Redistricting

c. There should be recognition of similarities of interest. Social, cultural, racial, ethnic, and economic interests common to the population of the area, which are probable subjects of legislation (generally termed "communities of interest"), should be considered. While some communities of interest may be more readily embodied in legislative districts, the Committee will attempt to accommodate interests articulated by residents. . . .

Congressional Redistricting

- b. There should be recognition of communities of interest. Social, cultural, racial, ethnic, and economic interests common to the population of the area, which are probable subjects of legislation, should be considered.
- c. The core of existing congressional districts should be preserved when considering the communities of interest to the extent possible. d. Whole counties should be in the same congressional district to the extent possible. d. . . . To a considerable degree most counties in Kansas are economic, social, and cultural units, or parts of a larger socioeconomic unit. These communities of interest should be considered during the creation of congressional districts.

KENTUCKY (Congressional)

INTERIM J. COMM. ON STATE GOV'T'S REDISTRICTING SUBCOMM., CRITERIA/STANDARDS FOR CONGRESSIONAL REDISTRICTING (Ky. 1991), https://www.ncsl.org/Portals/1/Documents/Redistricting/KY_Guidelines_1991_20076.pdf.

4. Where possible, congressional districts should attempt to preserve communities of interest where such efforts do not violate the other stated criteria.

MAINE (Legislative)

ME. STAT. tit. 21-A, § 1206-A (2021).

For purposes of this section, a "functionally contiguous and compact territory" is one that facilitates representation by minimizing impediments to travel within the district. Impediments to travel include, but are not limited to, physical features such as mountains, rivers, oceans and discontinued roads or lack of roads. The commission shall recognize that all political subdivision boundaries are not of equal importance and give weight to the interests of local communities when making district boundary decisions.

MARYLAND (Gubernatorial)

MD. GOVERNOR'S REDISTRICTING ADVISORY COMM., LEGAL STANDARDS FOR PLAN DEVELOPMENT (1991), https://www.senate.mn/departments/scr/REDIST/Red-US/MDprin.htm.

The plan should be cognizant of and consideration given to preserving identifiable communities of interest.

Gorrell v. O'Malley, No. 11-2975, 2012 WL 226919, at *3 (D. Md. Jan. 19, 2012).

Gorrell relies on a 2001 GRAC regulation that states that "[t]o the extent permitted by federal case law, the [redistricting plan] should . . . give consideration to[] preserving identifiable communities of interest." ECF No. 6 ¶ 35 [document available through PACER].

MASSACHUSETTS (City Councils and School Committees)

Mass. Gen. Laws ch. 43, § 131 (2021).

Each such district shall be compact and shall contain, as nearly as may be, an equal number of inhabitants, shall be composed of contiguous existing precincts, and shall be drawn with a view toward preserving the integrity of existing neighborhoods.

MICHIGAN (Congressional, Legislative)

MICH. CONST. art. 4, § 6.

- (1) An independent citizens redistricting commission for state legislative and congressional districts
- (13) The commission shall abide by the following criteria in proposing and adopting each plan, in order of priority:

(c) Districts shall reflect the state's diverse population and communities of interest. Communities of interest may include, but shall not be limited to, populations that share cultural or historical characteristics or economic interests. Communities of interest do not include relationships with political parties, incumbents, or political candidates.

MINNESOTA (Congressional, Legislative)

MINN. H. RSCH. DEP'T, REDISTRICTING PRINCIPLES 4-5 (2021), https://www.house.leg.state.mn.us/comm/docs/b2Affuq85kqeeifHqAvqQw.pdf.

A community of interest is a geographic area of population where people share a common political or social interest. Preservation of communities of interest has traditionally been included as a second-tier principle (applied after all others are considered). Phrasing of this principles [sic] have varied over the past several decades, primarily in the types of communities of interest that are called out as examples. The 2011 court panel highlighted "social, geographic, political, cultural, ethnic, economic, or other interests" and allowed for other communities to be included if persuasively argued. In its order establishing Congressional districts, it highlighted "mining, timber, and tourism industries" in northeast Minnesota, tribal nations, suburban and exurban "character," and highway and economic connections as either implicit or explicit communities of interest. It also recognized the cities of Minneapolis and St. Paul as clearly distinct communities. It can be helpful to have measurable data to demonstrate a community's existence, but this is not necessarily required if testimony or other evidence is presented.

Order Stating Redistricting Principles and Requirements for Plan Submissions at 5-7, 9 Hippert v. Ritchie, 813 N.W.2d 374 (Minn. Special Redistricting Panel 2012) (No. A11-152).

Congressional Districts

6. Where possible in compliance with the preceding principles, communities of interest shall be preserved. See League of United Latin Am. Citizens v. Perry, 548 U.S. 399, 433, 126 S. Ct. 2594, 2618 (2006) (LULAC) (stating that "maintaining communities of interest" is a traditional redistricting principle); Miller v. Johnson, 515 U.S. 900, 916, 115 S. Ct. 2475, 2488 (1995) (including respect for "communities defined by actual shared interests" in list of "traditional race-neutral districting principles"). For purposes of this principle, "communities of interest" include, but are not limited to, groups of Minnesota citizens with clearly recognizable similarities of social, geographic, political, cultural, ethnic, economic, or other interests. Additional communities of interest will be considered if persuasively established and if consideration thereof would not violate applicable law. Legislative Districts

8. Where possible in compliance with the preceding principles, communities of interest shall be preserved. *See LULAC*, 548 U.S. at 433, 126 S. Ct. at 2618; *Miller*, 515 U.S. at 916, 115 S. Ct. at 2488. For purposes of this

principle, "communities of interest" include, but are not limited to, groups of Minnesota citizens with clearly recognizable similarities of social, geographic, political, cultural, ethnic, economic, or other interests. Additional communities of interest will be considered if persuasively established and if consideration thereof would not violate applicable law.

JOURNAL OF THE HOUSE, 82nd Sess., at 3234 (Minn. 2001).

- S. F. No. 1326, A joint resolution relating to redistricting; establishing districting principles for legislative and congressional plans. . . .
- (6) [Preserving Communities of Interest.] The districts should attempt to preserve identifiable communities of interest where that can be done in compliance with the preceding principles. For purposes of this clause, "community of interest" means a recognizable area with similarities of interests, including, but not limited to, racial, ethnic, geographic, local governmental, social, cultural, or historic interests, as well as commonality of communications.

MISSISSIPPI (Congressional, Legislative)

Smith v. Hosemann, 852 F. Supp. 2d 757, 765-67 (S.D. Miss. 2011).

[A]void dividing community interests, The plan preserves as much as possible, . . . the core historical and regional interests of the Mississippi River/Delta region, East Central Mississippi, Southwest Mississippi, North Mississippi, and the Gulf Coast region. . . . The plan is drawn to continue to assure that the four major research universities are in separate districts. The military bases located in Lowndes, Lauderdale, and Harrison Counties remain in separate districts under this Court's plan. . . . We have also given our best efforts in respecting the community of interests of each district, although we recognize we have been constrained by legal requirements from perfectly achieving this goal.

MISSOURI (Legislative)

H. COMM. ON REDISTRICTING , REDISTRICTING STANDARDS AND GUIDELINES (Mo. 1991), https://www.ncsl.org/Portals/1/Documents/Redistricting/MO_Guildlines_1991_20076.pdf.

Other guidelines: . . .

(3) Preserves long-standing communities of interest based on social, cultural, ethnic, and economic similarities[.]

MONTANA (Congressional, Legislative)

MONT. DISTRICTING & APPOINTMENT COMM'N, CRITERIA AND GOALS FOR STATE LEGISLATIVE DISTRICTS 2 (2021), https://mtredistricting.gov/wp-content/up-loads/2021/08/adopted-criteria-state-legislative-dac-july-2021.pdf.

Keeping communities of interest intact. The Commission may consider keeping communities of interest intact. Communities of interest can be based on Indian reservations; urban interests, suburban interests, rural interests, including elementary and high school districts; tribal interests; neighborhoods; trade areas; geographic location; demographics; communication and transportation networks; social, cultural, historic, and economic interests and connections; or occupations and lifestyles.

MONT. DISTRICTING & APPOINTMENT COMM'N, CRITERIA AND GOALS FOR CONGRESSIONAL DISTRICTS (2021), https://mtredistricting.gov/wp-content/up-loads/2021/08/adopted-criteria-congressional-dac-july-2021.pdf.

Keeping communities of interest intact. The Commission may consider keeping communities of interest intact. Communities of interest can be based on Indian reservations, urban interests, suburban interests, rural interests, tribal interests, neighborhoods, trade areas, geographic location, demographics, communication and transportation networks, social, cultural, historic, and economic interests and connections, or occupations and lifestyles.

NEBRASKA (Congressional, Legislative)

Leg. Res. 134, 177th Leg., 1st Sess. (Neb. 2021).

Insofar as possible, and within the context of principles set forth by the United States Supreme Court, district boundaries shall define districts that are easily identifiable and understandable to voters, preserve communities of interest, and allow for the preservation of the cores of prior districts. . . . To the extent that such objectives are relied on, they shall be applied consistently and shall include, but not be limited to, the creation of compact districts, the preservation of municipal boundaries, the preservation of communities of interest, and allowance for the preservation of the cores of prior districts.

NEVADA (Congressional, Legislative)

Order Re: Redistricting at 3, 5-6, Guy v. Miller, No. 11-OC-42-1B (Nev. Dist. Ct. Sept. 21, 2011).

- A. United States Congressional Districts. . . .
- (c) Communities of interest. . . .
- [T]he Special Masters, to the extent practicable, shall draw districts to avoid dividing groups of common social (e.g. educational backgrounds, housing patterns), economic (e.g. income levels, living conditions), cultural, or language characteristics. . . . B. Nevada state legislative districts. . . .
- (c) Communities of interest. . . .

[T]he Special Masters shall, to the extent practicable, draw districts to avoid dividing groups of common social (e.g. educational backgrounds, housing patterns), economic (e.g. income levels, living conditions), cultural, or language characteristics.

MyDistricting Nevada 2021, NEV. LEG., https://www.leg.state.nv.us/Division/Research/Districts/Reapp/2021/getting-involved (last visited Jan 11, 2022).

Communities of Interest are used to help stakeholders understand local interests in preserving areas within a district. A community of interest can be a subdivision, a city, a neighborhood, or any geographic area defined and submitted for consideration. Please note that sometimes the process of balancing population in a district along with other demographic issues may result in splits even if a community of interest is known.

Proposed Rules for Redistricting by the Nevada Legislature, https://www.senate.mn/departments/scr/REDIST/Red-US/TAB5APPX.htm.

- I. Equality of Representation[.]
- 1. Equality of population of state legislative districts with only minor deviations is the goal of legislative redistricting.
- a. Deviations from the "ideal district" population should be justifiable either as a result of the limitations of census geography, or as a result of the promotion of a rational state policy including, but not limited to, respect for the traditional political geography and natural geography of the state, protection of a recognized community of interest, and the development of reasonably compact and contiguous districts.

NEW HAMPSHIRE (Legislative)

City of Manchester v. Sec'y of State, 48 A.3d 864, 878 (N.H. 2012).

They define a "community of interest" as "a group of people concentrated in a geographic area who share similar interests and priorities—whether social, cultural, ethnic, economic, religious, or political." . . . Nothing in the New Hampshire Constitution requires a redistricting plan to consider "communities of interest" as the Manchester petitioners define the concept.

NEW JERSEY (Legislative)

PHILIP CARCHMAN, STATEMENTS OF STANDARDS OF THE 11TH MEMBER OF THE NEW JERSEY LEGISLATIVE APPORTIONMENT COMMISSION 5-6 (2022), https://newjersey-globe.com/redistricing/carchman-says-5-population-deviation-will-be-permissible-for-legislative-map/ (to locate, see embedded document at the end of the article).

Communities of Interest[.]

The map should recognize communities of interest, which are neighborhoods, communities, or groups of people who share common values, goals,

and concerns—such as cultural, ethnic, linguistic, economic, or religious interests, or shared infrastructure concerns, shared environmental concerns, or shared industry. Communities of interest, however, should not be based on political considerations, such as partisan affiliation or loyalty to a particular incumbent. The increasing diversity of New Jersey's population makes identification and analysis of communities of interest critical to drafting a legislative map. Based on New Jersey's geographic and demographic diversity, the State's communities of interest are many. Although the preservation of communities of interest cannot displace mandatory apportionment principles, to the extent possible, districts should be created to preserve communities of interest. Packing or cracking any particular portion of the population should not be done under the guise of creating communities of interest.

Gonzalez v. State Apportionment Comm'n, 53 A.3d 1230, 1236 (N.J. App. Div. 2012).

Rosenthal identified seven additional standards: (1) no division of municipalities, except for Newark and Jersey City which would be "divided no more than once"; (2) contiguity, that "each district [would] not be scattered in several pieces"; (3) compactness, as much like a square, circle, or rectangle as possible, recognizing that the whole-municipality standard made perfect compactness impossible; (4) recognition of "social, cultural, ethnic, and economic communities of interest"....

NEW MEXICO (Congressional, Legislative)

N.M. STAT. ANN. § 1-3A-7 (2021).

- A. The committee shall develop district plans in accordance with the following provisions: . . .
- (9) to the extent feasible, districts shall be drawn in an attempt to preserve communities of interest and shall take into consideration political and geographic boundaries, including the boundaries of Indian nations, tribes and pueblos;

CITIZEN REDISTRICTING COMM., CITIZEN REDISTRICTING COMMITTEE RULES OF PROCEDURE, 1, 4 (N.M. 2021), https://www.nmredistricting.org/wp-content/up-loads/2021/07/2021-07-02-CRC-Rules-of-Procedure-adopted-1.pdf.

7. Definitions:

F. "Traditional redistricting principles" means compactness; contiguity; preservation of communities of interest, taking into consideration political and geographic boundaries, including the boundaries of Indian nations, tribes, and pueblos; preservation of cores of prior districts; and consideration of an incumbent's address only to avoid the pairing of incumbents unless pairing is required by the aforementioned principles. . . . 11. Committee Development and Proposal of District Plans:

- C. The committee shall develop district plans for proposal in accordance with the following provisions: . . .
- (5) districts shall be drawn consistent with traditional districting principles; . . .
- (7) districts shall be drawn in the attempt to preserve communities of interest, taking into consideration geographical boundaries and political boundaries, including political subdivisions and Indian nations, tribes, and pueblos;

NEW YORK (Congressional, Legislative)

N.Y. CONST. art. III, § 4(c)(5).

The commission shall consider the maintenance of cores of existing districts, of pre-existing political subdivisions, including counties, cities, and towns, and of communities of interest.

N.Y. MUN. HOME RULE LAW § 10 (McKinney 2021).

The maintenance of cores of existing districts, of pre-existing political subdivisions including cities, villages, and towns, and of communities of interest shall also be considered.

N.Y. MUN. HOME RULE LAW § 34(4) (McKinney 2021).

[A]ny plan of districting or redistricting adopted pursuant to a county charter or charter law relating to the division of any county, except a county wholly contained within a city, into districts for the purpose of the apportionment or reapportionment of members of its local legislative body e. . . . The maintenance of cores of existing districts, of pre-existing political subdivisions including cities, villages, and towns, and of communities of interest shall also be considered.

NORTH CAROLINA (Congressional, Legislative)

J. REDISTRICTING COMM., 2021 JOINT REDISTRICTING COMMITTEE PROPOSED CRITERIA (N.C. 2021), https://ncleg.gov/documentsites/committees/Senate2021-154/2021/08-09-2021/2021%20Joint%20Redistricting%20Committee%20Plan%20Proposed%20Criteria.pdf.

So long as a plan complies with the foregoing criteria, local knowledge of the character of communities and connections between communities may be considered in the formation of legislative and congressional districts.

Stephenson v. Bartlett, 562 S.E.2d 377, 407 (N.C. 2002) (Orr, J., concurring in part and dissenting in part).

The General Assembly may also utilize nonmandatory criteria acknowledged by the federal courts as acceptable—i.e., community of interest, incumbent protection, and partisan considerations—so long as such use does not result in a violation of the mandatory criteria.

OHIO (Legislative)

LEGIS. SERVS. COMM'N, REDISTRICTING IN OHIO 6 (Ohio 2021), https://www.lsc.ohio.gov/documents/reference/current/memberson-lybriefs/134%20Redistricting%20in%20Ohio.pdf.

The Ohio Redistricting Commission and the General Assembly might consider other district-drawing concepts in creating district maps, so long as the constitutional requirements are met. For example, some states use criteria such as preserving communities of interest in a single district or maintaining previous district lines to the extent feasible.

OKLAHOMA (Congressional, Legislative)

OKLA. CONST. art. V, § 9A.

In apportioning the State Senate, consideration shall be given to population, compactness, area, political units, historical precedents, economic and political interests, contiguous territory, and other major factors, to the extent feasible.

OKLA. H.R., 2021 REDISTRICTING COMMITTEE GUIDELINES FOR REDISTRICTING (2021 (on file with authors).

- 1. A. The committee will strive to make all legislative and congressional plans fair and reasonable with regard to population, minority, ethnic and political groups. . . .
- 4. Where possible, consideration shall be given to preserving long-standing communities of interest based on social, cultural, ethnic, and economic similarities.

OKLA. STATE S., 2021 SENATE SELECT COMMITTEE ON REDISTRICTING GUIDELINES FOR REDISTRICTING, (2021), https://oksenate.gov/sites/default/files/inline-files/Senate%20Redistricting%20Guidelines.pdf.

The following guidelines are suggested for the Senate Select Committee on Redistricting consideration:

C. As required by law, districts will be drawn following the principles set forth in the Oklahoma Constitution. Those principles are population, compactness, area, preservation of political subdivisions, historical precedents, economic and political interest, contiguous territory, and other major factors to the extent possible.

OREGON (Congressional, Legislative)

OR. REV. STAT. § 188.010 (2021).

- (1) Each district, as nearly as practicable, shall: . . .
- (d) Not divide communities of common interest;

OR. ADMIN. R. 165-008-0060 (2022).

(b) "Not divide communities of common interest." Where urban neighborhoods, rural communities or other communities can be identified, an effort will be made to retain that community within a single district. Consideration will be given to market areas covered by local media;

RHODE ISLAND (Congressional, Legislative)

Act of July 6, 2021, 2021 R.I. Laws ch. 21-176.

Congressional and state legislative districts shall be as compact in territory as possible and, to the extent practicable, shall reflect natural, historical, geographical and municipal and other political lines and communities of interest, as well as the right of all Rhode Islanders to fair representation and equal access to the political process.

SOUTH CAROLINA (Congressional, Legislative)

S.C. S. Judiciary Comm. Redistricting Subcomm., 2021 Redistricting Guidelines 2 (2021).

III. Additional Considerations. Other criteria that should be given consideration, where practical and appropriate, in no particular order of preference, are:

A. Communities of Interest. Communities of interest should be considered. Areas defined by geographic, demographic, historic or other characteristics that cause people to identify with one another, including economic, social, cultural, language, political, and recreational activity interests common to the area's population may constitute communities of interest. Communities of interest may be overlapping and may consist of one or more formally, or informally, defined geographic areas with unifying common interests.

S.C. H.R. JUDICIARY COMM. REDISTRICTING AD HOC COMM., 2021 GUIDELINES AND CRITERIA FOR CONGRESSIONAL AND LEGISLATIVE REDISTRICTING (2021), https://redistricting.schouse.gov/docs/2021%20Redistricting%20Guidelines.pdf.

VII. Communities of Interest[.]

Communities of interest shall be considered in the redistricting process. A variety of factors may contribute to a community of interest including, but

not limited to the following: (a) economic; (b) social and cultural; (c) historic influences; (d) political beliefs; (e) voting behavior; (f) governmental services; (g) commonality of communications; and (h) geographic location and features. Communities of interest shall be considered and balanced by the Redistricting Ad Hoc Committee, the House Judiciary Committee, and the South Carolina House of Representatives. County boundaries, municipality boundaries, and precinct lines (as represented by the Census Bureau's Voting Tabulation District lines) may be considered as evidence of communities of interest to be balanced, but will be given no greater weight, as a matter of state policy, than other identifiable communities of interest. It is possible that competing communities of interest will be identified during the redistricting process. Although it may not be possible to accommodate all communities of interests, the Redistricting Ad Hoc Committee, the House Judiciary Committee, and the South Carolina House of Representatives will attempt to accommodate diverse communities of interest to the extent possible.

SOUTH DAKOTA (Legislative)

S.D. CODIFIED LAWS § 2-2-41 (2021).

The Legislature, in making the 2021 redistricting, determines, as a matter of policy, that the following principles are of primary significance: . . . (2) Protection of communities of interest by means of compact and contiguous districts;

FAQs, S.D. LEG. LEGIS. RSCH. COUNCIL, https://sdlegislature.gov/Redistricting/Faq (last visited Jan. 11, 2022).

What are communities of interest?

A community of interest is defined as a group of people in a geographical area, which share similar interests and priorities: social, cultural, ethnic, economic, religious, or political, such as:

- Shared interests
- Housing patterns
- Living conditions
- Neighborhoods
- Economic status
- Education[.]

TEXAS (Legislative)

TEX. LEGIS. COUNCIL, GUIDE TO 2021 REDISTRICTING 5 (2021), https://redistricting.capitol.texas.gov/docs/guide to 2021 redistricting.pdf.

Public Hearings[.]

In order to obtain information that aids the Texas Legislature in making redistricting decisions, legislative committees generally gather public comments prior to the redistricting session, providing an opportunity for citizens to present testimony concerning local preferences, communities of interest, local voting patterns, and other issues that the legislature may consider relevant when redrawing district lines.

Patrick Graves, *Redistricting 101: How Census Data Affect Elections*, TEX. COMPTROLLER OF PUB. ACCTS.: FISCALNOTES (Jan. 2020), https://comptroller.texas.gov/economy/fiscal-notes/2020/jan/redistricting.php.

Along with equal population, other key criteria include compactness, contiguity, partisan and racial fairness and the preservation of existing political communities. Local preferences, voting patterns and communities of interest also must be taken into consideration.

Redistricting Glossary, TEX. REDISTRICTING, https://redistricting.capitol.texas.gov/glossary (last visited Jan 13, 2022).

Community of interest[.]

A term sometimes used to describe a grouping of people in a geographical area, such as a specific region or neighborhood, who have common political, social, or economic interests.

TEX. LEGIS. COUNCIL, STATE AND FEDERAL LAW GOVERNING REDISTRICTING IN TEXAS 23, 25, 31, 35, 40, 43 (2011), https://redistricting.capitol.texas.gov/pdf/2011 0819 State and Federal Law TxRedist.pdf.

Chapter 2[.]

One Person, One Vote: The Equal Population Requirement

III. Equal Population for Congressional Districts

E. Improper Justifications

Preserving Communities of Interest. . . .

IV. Equal Population for State Legislative Districts

F. Justifications for Deviations in Excess of 10 Percent in Legislative Plan

Improper Justifications

1. Preserving Communities of Interest.

UTAH (Congressional, Legislative)

UTAH CODE ANN. § 20A-20-302(5) (West 2021).

The commission shall define and adopt redistricting standards for use by the commission that require that maps adopted by the commission, to the extent practicable, comply with the following, as defined by the commission:

(a) preserving communities of interest;

Synopsis of Threshold Criteria and Redistricting Standards, UTAH INDEP. REDISTRICTING COMM'N, https://uirc.utah.gov/uirc-meeting/synopsis-criteria-and-standards/ (last visited Jan 13, 2022); see also UTAH INDEP. REDISTRICTING COMM'N, PROPOSED THRESHOLD CRITERIA AND REDISTRICTING STANDARDS (2021), https://www.utah.gov/pmn/files/744283.pdf (providing extended discussion).

Communities of Interest[.]

The Commission shall, to the extent practicable, preserve communities of interest. A "community of interest" is defined as a group of people in a contiguous geographic area that share common policy interests, whether cultural, religious, social, economic, or others that do not necessarily coincide with the boundaries of a political subdivision. A community of interest cannot be based on a relationship with a political party, incumbent, or political candidate.

VERMONT (Legislative)

VT. STAT. ANN. tit. 17, § 1903(b) (2021).

The representative and senatorial districts shall be formed consistent with the following policies insofar as practicable: . . .

(2) recognition and maintenance of patterns of geography, social interaction, trade, political ties, and common interests;

VIRGINIA (Congressional, Legislative)

VA. CODE ANN. § 24.2-304.04 (2021).

5. Districts shall be drawn to preserve communities of interest. For purposes of this subdivision, a "community of interest" means a neighborhood or any geographically defined group of people living in an area who share similar social, cultural, and economic interests. A "community of interest" does not include a community based upon political affiliation or relationship with a political party, elected official, or candidate for office.

VA. REDISTRICTING COMM'N, 2021 REDISTRICTING GUIDELINES AND CRITERIA 1, 3-5 (2021), https://www.virginiaredistricting.org/2021/Data/Ref/2021%20Redistricting%20Guidelines%20and%20Criteria%208-19-2021.pdf.

Plans drawn for the Commission must comply with the following guidelines and criteria in order of the priority listed below. . . .

- 3. Communities of Interest
- c. Commission Guidance:
- i. To maintain the communities of interest in the Commonwealth as required by Virginia law, the Commission shall consider the following requirements, in order of priority:

(e) Neighborhoods or any geographically defined group of people living in an area who share similar social, cultural, and economic interests shall be maintained to the extent possible. . . .

Note on Communities of Interest: Communities of interest are extremely important to the Commission, and the interest in preserving these communities is reflected in these guidelines.

WASHINGTON (Congressional, Legislative)

WASH. REV. CODE § 44.05.090 (2021).

In the redistricting plan:

- (2) To the extent consistent with subsection (1) of this section the commission plan should, insofar as practical, accomplish the following:
- (a) District lines should be drawn so as to coincide with the boundaries of local political subdivisions and areas recognized as communities of interest.

Describe Your Community, WASH. STATE REDISTRICTING COMM'N, https://www.redistricting.wa.gov/participate/describe (last visited, Jan 13, 2022).

How to Prepare Your Community Testimony[.]

Your personal story is important, and the Commission wants to hear from you and your community members. What makes your community unique? What do you and your community members have in common? There is no wrong way to describe your community, and we invite you to consider the following, individually and with your neighbors, to prepare your community testimony. If you were describing your community to someone who lives elsewhere, what would you choose to tell them about? Are there long standing traditions or festivals that unite you and make you unique? Are there physical characteristics, such as waterways, processing plants, parks or forests, that contribute to your community identity? Can you describe issues that your community has come together over, such as advocating for services, for infrastructure changes, or other local challenges?

WEST VIRGINIA (Legislative)

W. VA. CODE § 1-2-1(c)(6) (2021).

Also taken into account in crossing county lines, to the extent feasible, the community of interests of the people involved.

WISCONSIN (Legislative)

WIS. STAT. § 4.001(3) (2010).

To the very limited extent that precise population equality is unattainable, ss. 4.009 and 4.01 to 4.99 reflect a good faith effort to apportion the legislature giving due consideration to the need for contiguity and compactness of area, the maintenance of the integrity of political subdivisions and of communities of interest, and competitive legislative districts.

S.J. Res. 63, 2021-2022 Sess. (Wis. 2021).

That it is the public policy of this state that plans establishing legislative districts should: . . .

3. Retain as much as possible the core of existing districts, thus maintaining existing communities of interest, and promoting the equal opportunity to vote by minimizing disenfranchisement due to staggered Senate terms; ... 6. Respect and maintain whole communities of interest where practicable;

STATE OF WIS. OFF. OF THE GOVERNOR, EXECUTIVE ORDER #66: RELATING TO THE PEOPLE'S MAPS COMMISSION (2021), https://docs.legis.wisconsin.gov/code/executive_orders/2019_tony_evers/2020-66.pdf.

The proposed maps shall, whenever possible: . . . f. Maintain traditional communities of interest;

WYOMING (Legislative)

WYO. LEGIS. SERV. OFF., REDISTRICTING: INTERIM TOPIC, GUIDELINES AND PAST PRINCIPLES 4 (2021), https://wyoleg.gov/InterimCommittee/2021/07-202106074-03Redistrictinginterimtopicguidelinespastprinciples-LSO.pdf.

Election districts should be contiguous, compact, and reflect a community of interest;

For more information, see Peter S. Wattson, Districting Principles for 2010 and Beyond (2019), https://www.ncsl.org/Portals/1/Documents/Elections/DistrictingPrinciplesFor2010andBeyond-6.pdf?ver=2019-04-25-110114-560; Redistricting Across States, All About Redistricting, https://redistricting.lls.edu (last visited Jan. 10, 2022); Appendix G: State Districting Principles, Nat'l Conf. of State Legislatures, https://www.senate.mn/departments/scr/RedIstricting Principles, Nat'l Conf. of State Districting Principles, Nat'l Conf. of State Legislatures, https://www.senate.mn/departments/scr/RedIstricting Project, https://gerrymander.princeton.edu/about (last visited Jan. 10, 2022).