Mapping and Analysis: New Hampshire's Proposed U.S. House Districts

Gerrymandering in the Granite State, Visualized

A Report Commissioned by The American Civil Liberties Union of New Hampshire December 15, 2021



To: Devon Chaffee, Executive Director ACLU-NH Date: December 15, 2021

From: William Terry, Ph.D., Data Analyst

Tyler Vick, Managing Director Project No.: F2186.01.01

RE: Analysis of New Hampshire's Proposed U.S. House Districts

EXECUTIVE SUMMARY

Last month, New Hampshire's Special House Committee on Redistricting released HB52, a bill proposing new Congressional district lines that substantively depart from the map that currently governs the selection of the state's US House delegation. In its current form, HB52 would cleave the current map into two non-competitive districts – a prospective District 1 highly favorable to Republican candidates and a District 2 heavily concentrated with Democratic voters.

Elementary and straightforward calculations from publicly available 2020 Census population data and 2020 Presidential returns at the ward level show that the Majority's plan addresses the need for minor population reapportionment with a significant reshaping of New Hampshire's electoral map.

Straightforward analysis indicates HB52 is consistent with a canonical "pack-and-crack" gerrymandering technique, wherein one district – ostensibly New Hampshire's District 2 in this case – is sacrificed, "packed" with the opponent's voters, with the aim of increasing the gerrymanderer's prospects in the other district – as is ostensibly the case with New Hampshire's prospective First District.

In Summary, HB52 is:

- Significantly transformative of the current House boundaries. The reapportionment needed to bring the current map in line with 2020 Census data could be achieved by moving precisely one of New Hampshire's 320 voting wards less than 1% of all wards. HB52, however, proposes moving 75 wards 23.4% of the total and 28.6% of New Hampshire's residents would change districts.
- Divergent from previous House district maps. The current House map was drawn in 2012. Like HB52, the status quo map was created by a Republican House. Unlike the Republican status quo map, however, HB52 represents a departure from decades of decennial bipartisan redistricting: Between 1882 and 2020, New Hampshire's House districts were virtually unchanged.

- Polarizing. HB52 creates two stark House constituencies that look markedly different from the New Hampshire electorate writ large and especially different from each other. As constituted under HB52, District 2's vote share in 2020 for former President Donald J. Trump would have been 50.4% very similar to North Carolina's. In the prospective District 1, in contrast, the Republican two-party vote share would have been nearly identical to Oregon's at 42.3% and just slightly below Trump's performance in his opponent's home state of Delaware.
- Advantageous to the GOP. New Hampshire's 2020 voting patterns indicate that its pair of House seats are slightly Democratic leaning but still quite competitive. HB52 creates substantially less competitive districts with a prospective Democratic-leaning Second District that falls definitively outside the standard classification of "swing" districts used by Cook's Political Report, and a First District that is GOP-leaning and also substantially safer than either of the current districts.

ANALYSIS

To preserve some of the Republic's most fundamental principles, the US Constitution requires that states revisit their Congressional boundaries on a ten-year basis, after each decennial Census. Following a decade of significant population growth between 2020 and 2010 – especially in southern areas of the state – New Hampshire's state legislature has been tasked with passing a plan that guarantees population parity between the State's two House districts – a necessary condition for preserving the established democratic principle of "one person-one vote."

Context and Methodology

Concretely, the Legislature is called upon to assign each of the State's 320 voting wards to precisely one of its two House districts. Per New Hampshire's state constitution, it is not permissible to draw House lines that bisect its voting wards – each ward must be wholly in one district or the other.

Thus, in November 2021, pursuant with State and US Constitutional mandates, the Redistricting Committee reported bill HB52 to update its boundaries to account for the disparate population growth across its current House districts.

Drawing on calculations from publicly available data described below it may be seen that HB52 eschews minimal revisions to update the current map produced by a previous Republican majority after the 2010 Census.

The standard metric used to quantify a party's support in a particular district is a concept known as "partisan lean" (PL). In the present context, the PL of a (current or proposed) House district is computed by comparing precisely how well the GOP fared in the most recent Presidential contest in the focal district minus the Party's performance in the US as whole.

In 2020, for instance, Donald Trump (R) won 47.5% of all votes cast for one of the two major parties in the US. In New Hampshire's House Districts 1 and 2, Trump's (R) two-party vote share was 47.2%

and 45.3%, respectively. Hence, the PL of the current districts were R-0.3 and R-2.2. Both districts, in other words, were competitive and, like the Granite State itself, relatively centrist.

HB52 is Favorable to GOP Electoral Fortunes

As Table 1 indicates, HB52 would create two less competitive districts – a prospective District 1, favorable to Republican candidates, and a prospective District 2 heavily concentrated with Democratic-leaning voters.

Table 1: Partisan Leanings of New Hampshire's U.S. House Districts Under the Current Map and Under Redistricting Proposal HB52

| | Current | Proposed |
|------------|-------------------------|-------------------------|
| District 1 | R-0.3 = (47.2% - 47.5%) | R+2.9 = (50.4% - 47.5%) |
| District 2 | R-2.2 = (45.3% - 47.5%) | R-5.2 = (42.3% - 47.5%) |

HB52 Creates a Polarized House Map

HB52 therefore turns two Democratic leaning but highly competitive districts into two non-competitive districts, one of which should be relatively comfortable for future Republican candidates. In so doing HB52 is likely to substantially increase the partisan polarization of the state delegation. The rationale is simple.

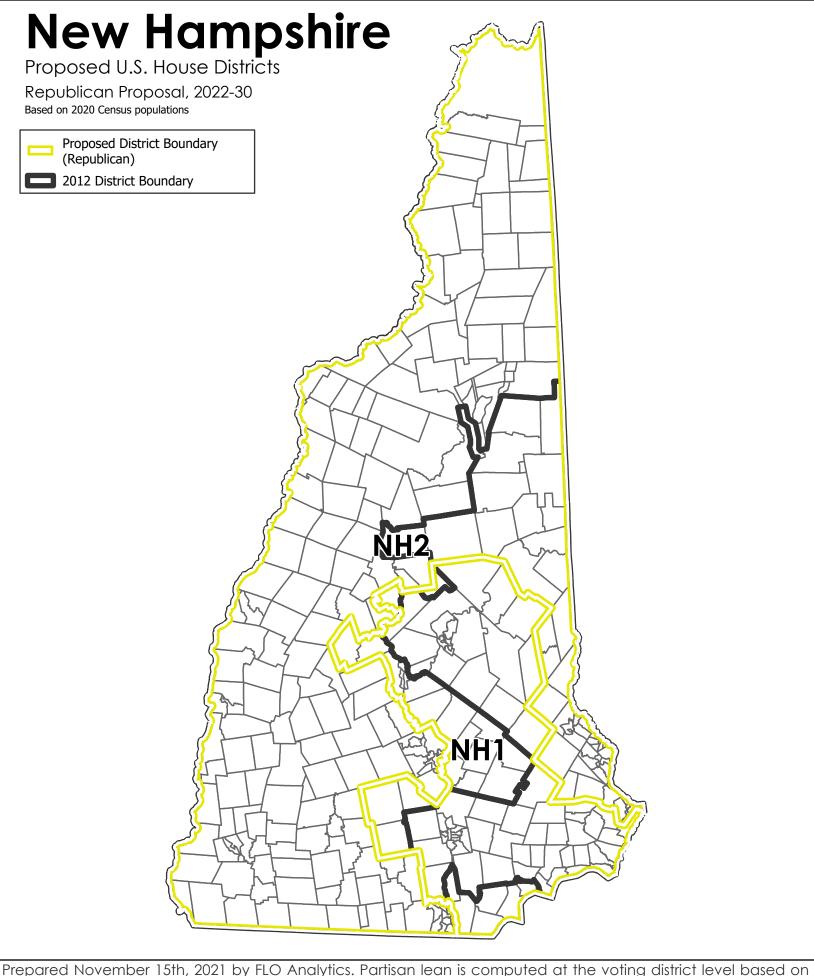
Notice that Trump won 46.3% of the two-party vote in New Hampshire. Thus, under the current configuration, both New Hampshire districts are similar to the state electorate, with deviations in 2020 GOP support from the state writ large of a modest 0.9 and 1.0 percentage points in Districts 1 and 2. HB52 increases the divergence relative to the New Hampshire electorate very significantly to 4.1 and 4.0 percentage points, respectively.

The polarizing effect of HB52 may be problematic in two senses: (1) It creates two "outlier" districts that are much farther apart from each other and the New Hampshire electorate; (2) It creates seats whose incumbents are much safer from interparty competition – these districts are not competitive in a partisan lean sense and political scientists argue that this tends to make incumbents hew closer to the fringes of the electorate because their most formidable opposition is more likely to appear in the party primary rather than the general election.

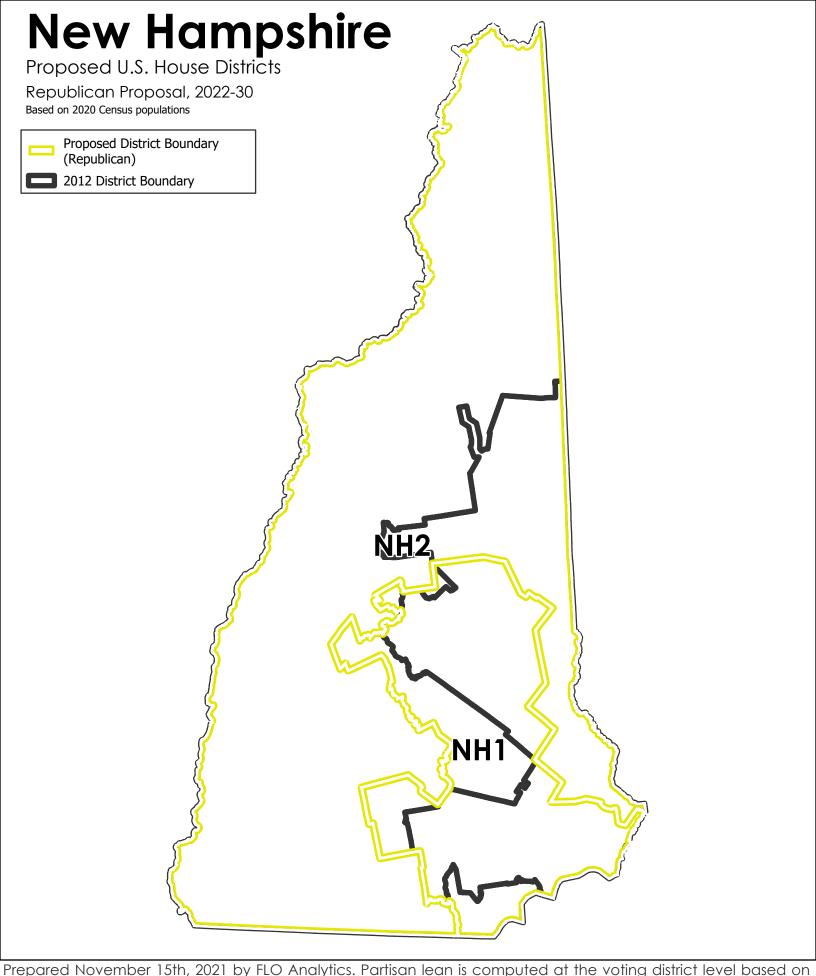
CONCLUSION

HB52 will be taken up in the New Hampshire House of Representatives on January 5 or 6, 2022. The analogous bills governing the New Hampshire State Senate and Executive Council district lines – HB51 and HB53 – are currently in the House Redistricting Committee and are expected to be taken up in earnest in the Senate Redistrict Committee in 2022.

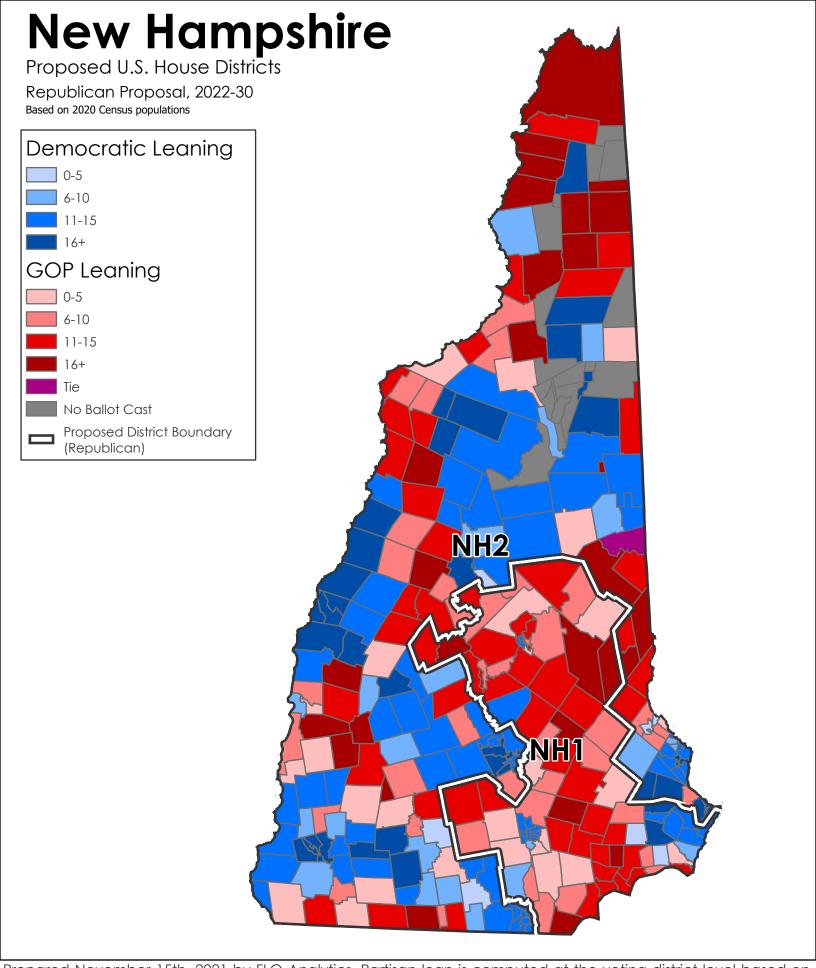
Statewide



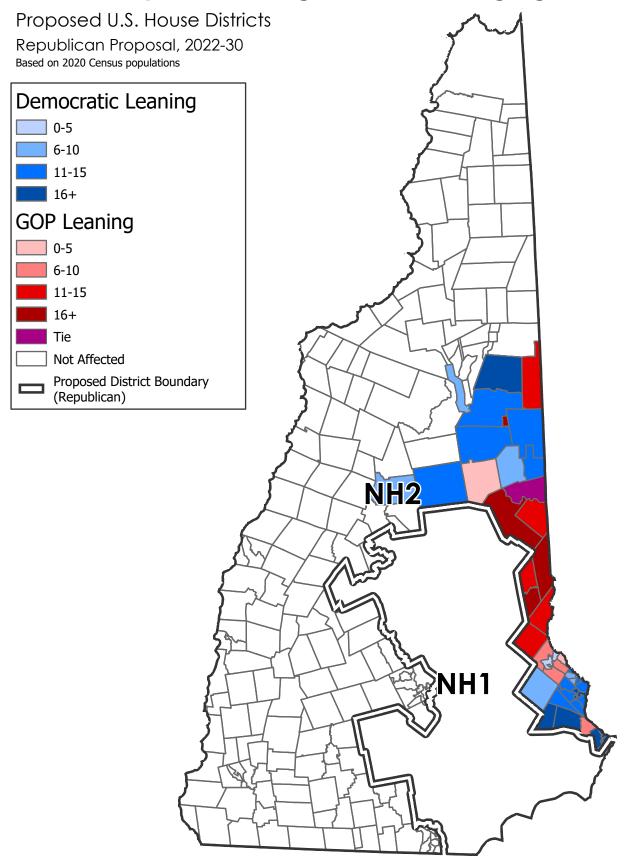
the 2020 Presidential two-party vote. GOP leaning districting are those in which Trump (R) garnered a larger share than his national average -i.e., 47.7%. Conversely, in Democratic leaning districts - denoted in blue - Trump's share of the two-party vote was less than 47.7% by the amount indicated in the legend.

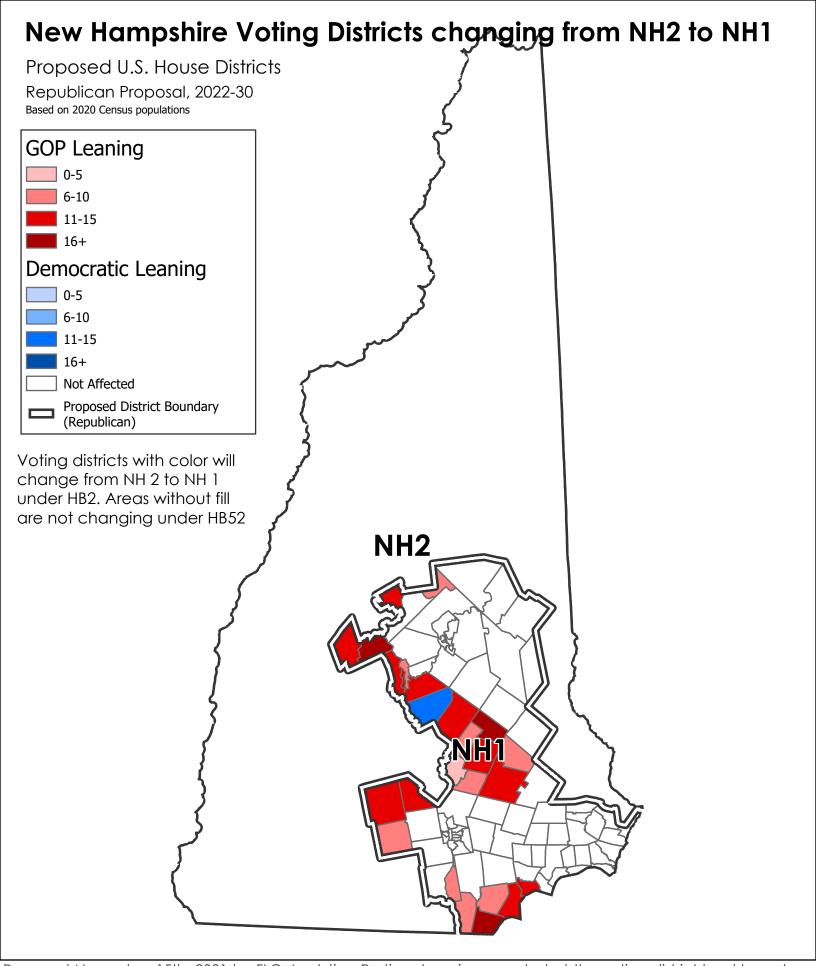


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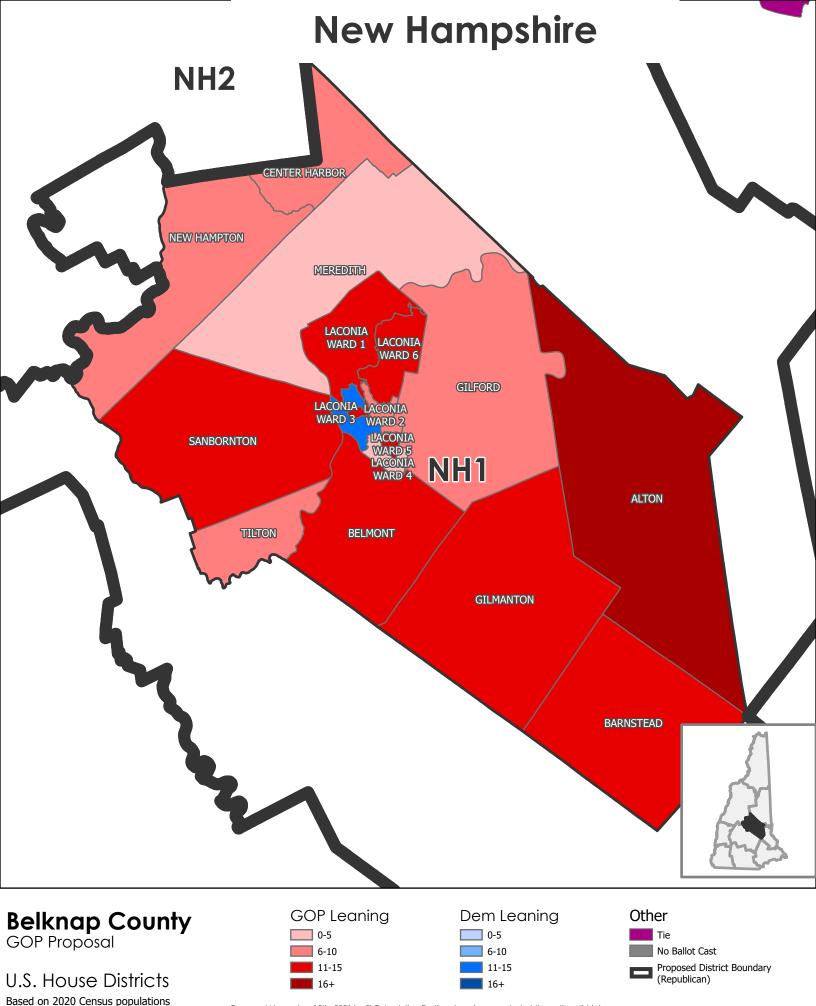


New Hampshire Voting Districts changing from NH1 to NH2



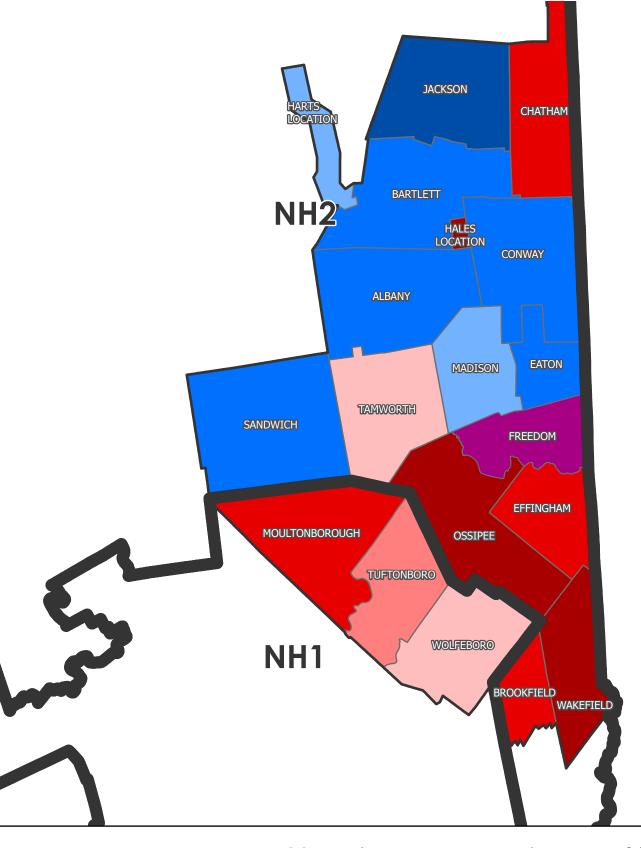


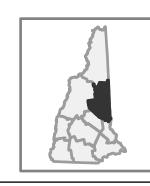
County Showing Partisan Lean



Prepared November 15th, 2021 by FLO Analytics. Partisan lean is computed at the voting district level based on the 2020 Presidential two-party vote. GOP leaning districting are those in which Trump (R) garnered a larger share than his national average -i.e., 47.7%. Conversely, in Democratic leaning districts - denoted in blue - Trump's share of the two-party vote was less than 47.7% by the amount indicated in the legend.

5 Miles





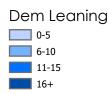
Carroll CountyGOP Proposal

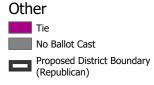
U.S. House Districts

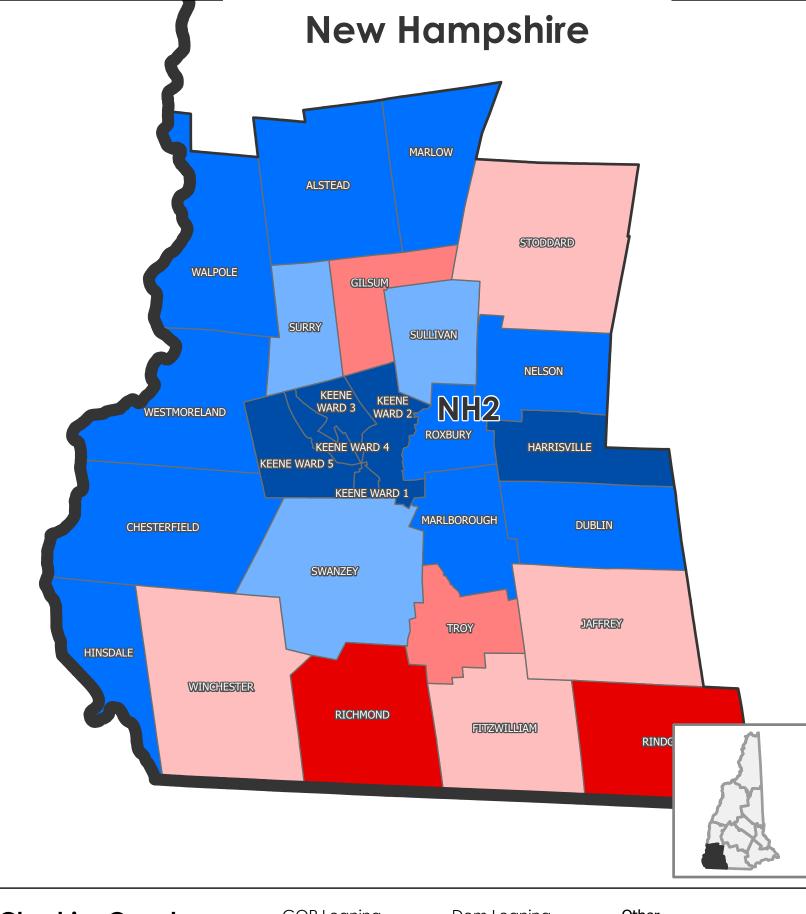
Based on 2020 Census populations

8 Miles

| GOP Leaning | |
|-------------|--|
| 0-5 | |
| 6-10 | |
| 11-15 | |
| 16+ | |







Cheshire County GOP Proposal

5 Miles

U.S. House Districts
Based on 2020 Census populations

2.5

GOP Leaning

0-5

6-10

11-15

Dem Leaning

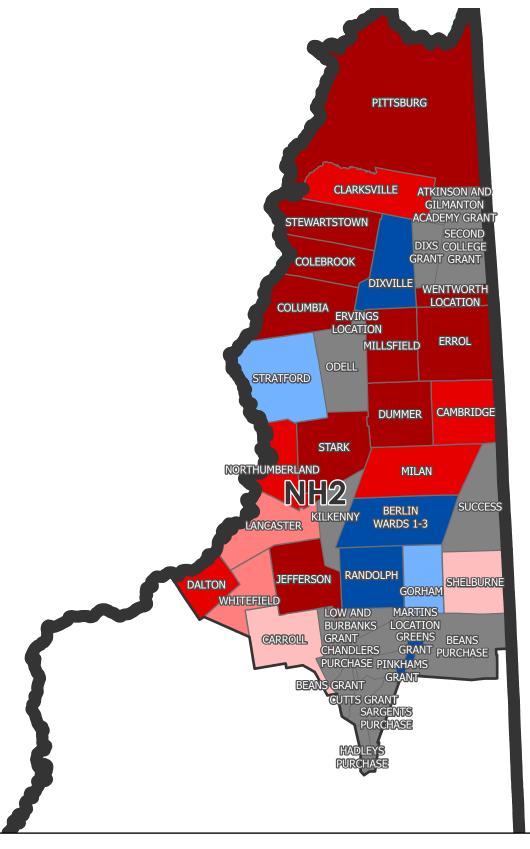
0-5
6-10
11-15
16+

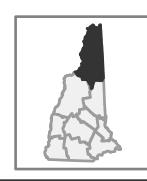
Other

Tie

No Ballot Cast

Proposed District Boundary (Republican)





Coos County

GOP Proposal

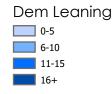
U.S. House Districts

Based on 2020 Census populations

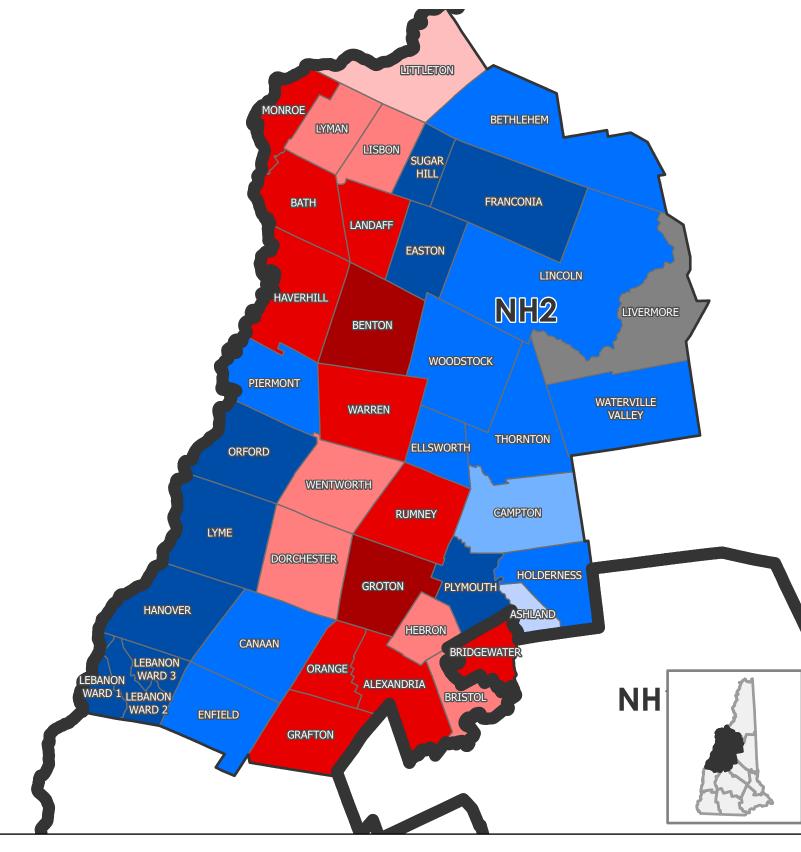
12 Miles

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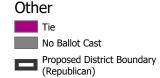
Grafton County GOP Proposal

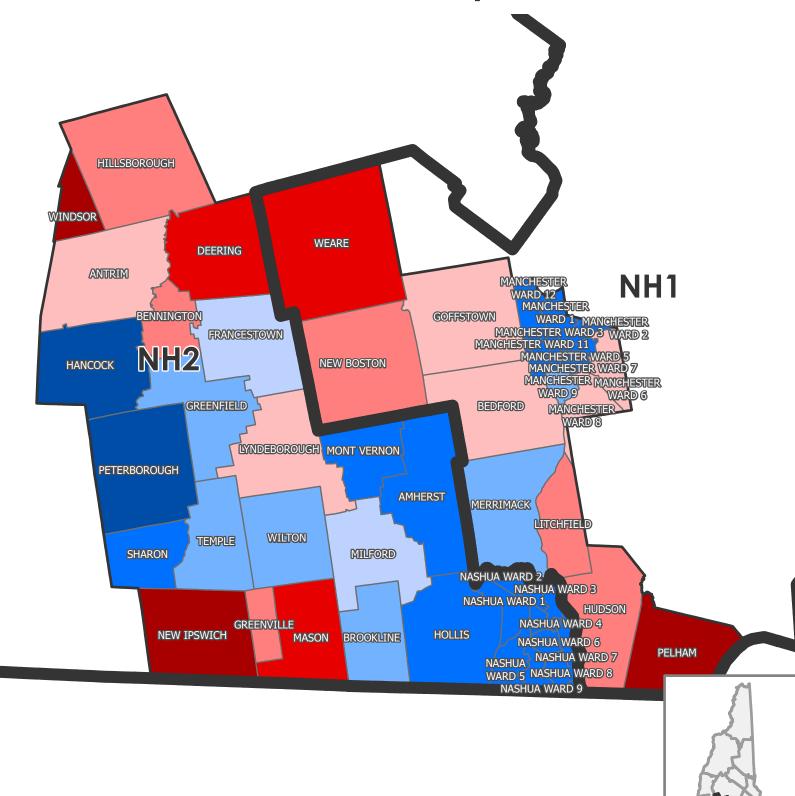
4.5

U.S. House Districts Based on 2020 Census populations

9 Miles









7 Miles

U.S. House Districts
Based on 2020 Census populations

3.5

GOP Leaning

0-5

6-10

11-15

16+

Dem Leaning

0-5

6-10

11-15

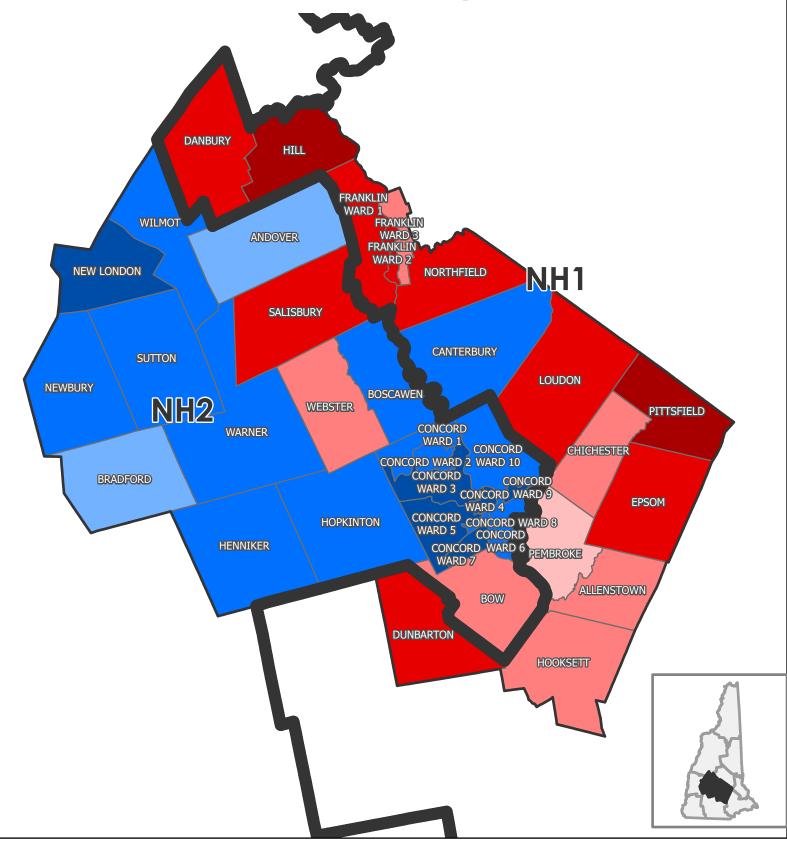
16+

Other

Tie

No Ballot Cast

Proposed District Boundary (Republican)



Merrimack County

GOP Proposal

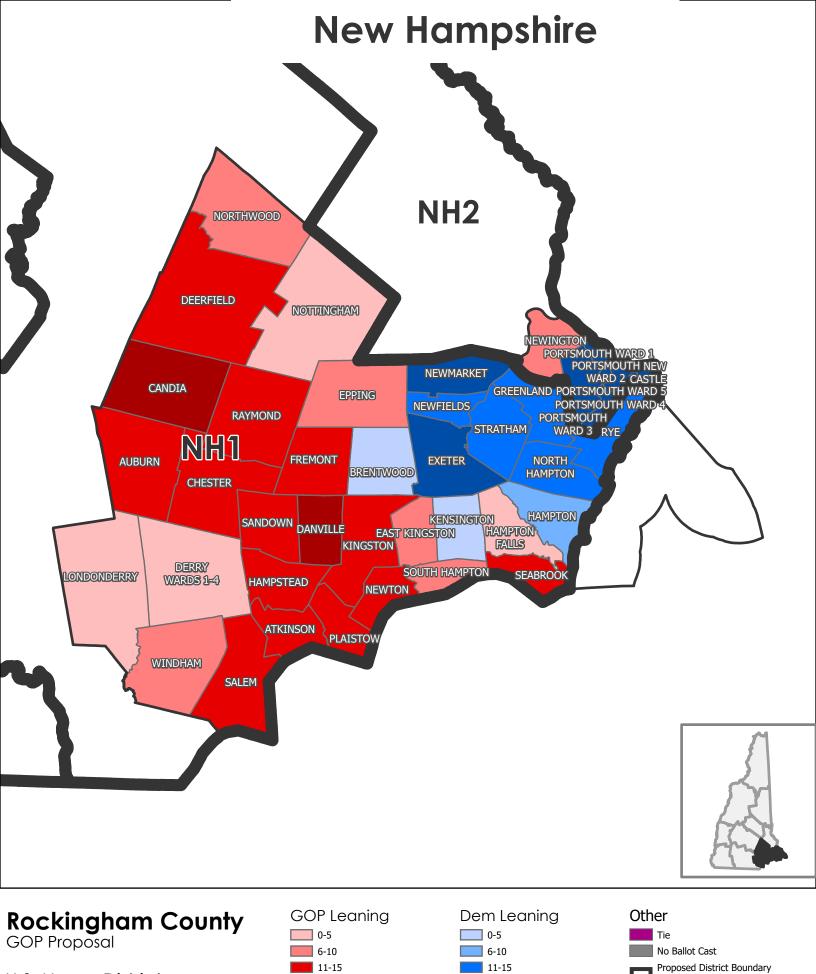
U.S. House Districts Based on 2020 Census populations **GOP Leaning** 6-10 11-15

Dem Leaning 0-5 6-10 11-15

Other No Ballot Cast Proposed District Boundary (Republican)

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3.5 7 Miles

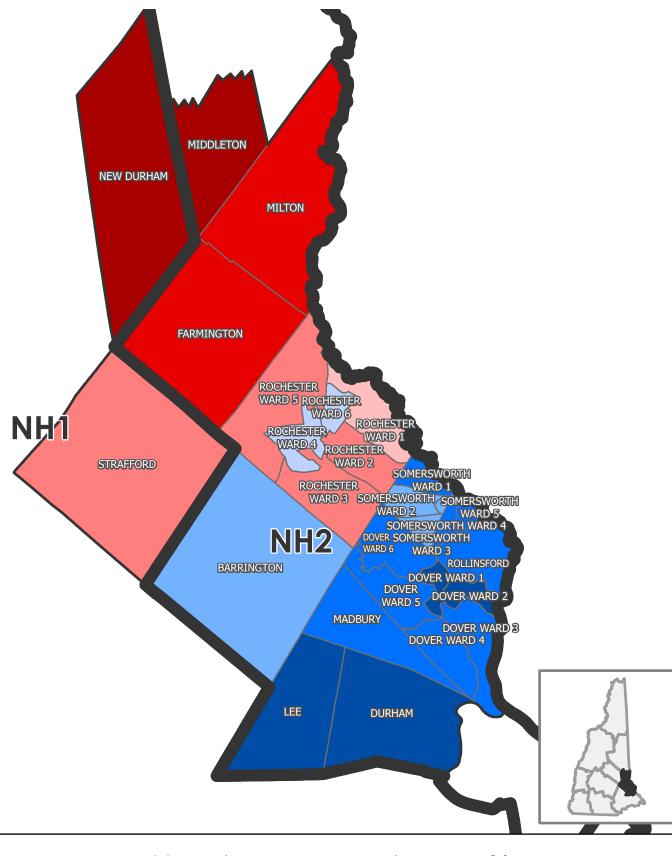


U.S. House Districts Based on 2020 Census populations Prepared November 15th, 2021 by FLO Analytics. Partisan lean is computed at the voting district

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(Republican)

3.5 7 Miles



Strafford CountyGOP Proposal

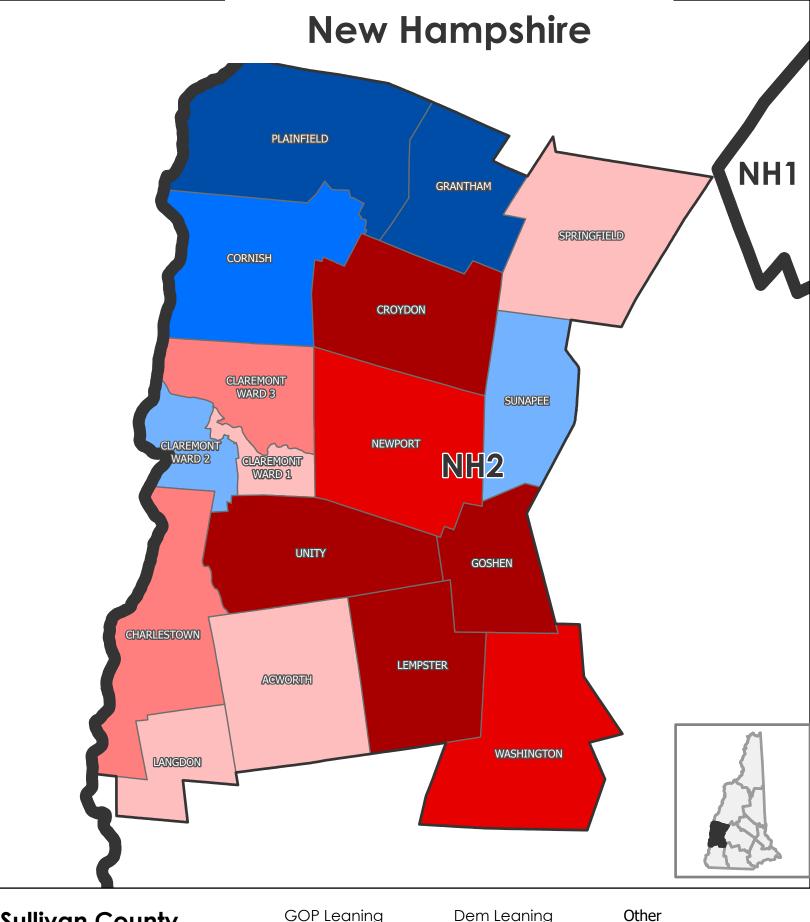
U.S. House Districts
Based on 2020 Census populations

5 Miles

2.5







Sullivan County

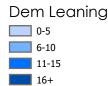
GOP Proposal

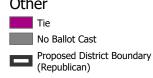
2.5

U.S. House Districts Based on 2020 Census populations

5 Miles







County

Showing Partisan Lean & District Shifts

Belknap County

GOP Proposal, 2022-2030

U.S. House Districts

Based on 2020 Census populations

Democratic Leaning

0-5

6-10

11-15

16+

GOP Leaning

0-5

6-10 11-15

16+

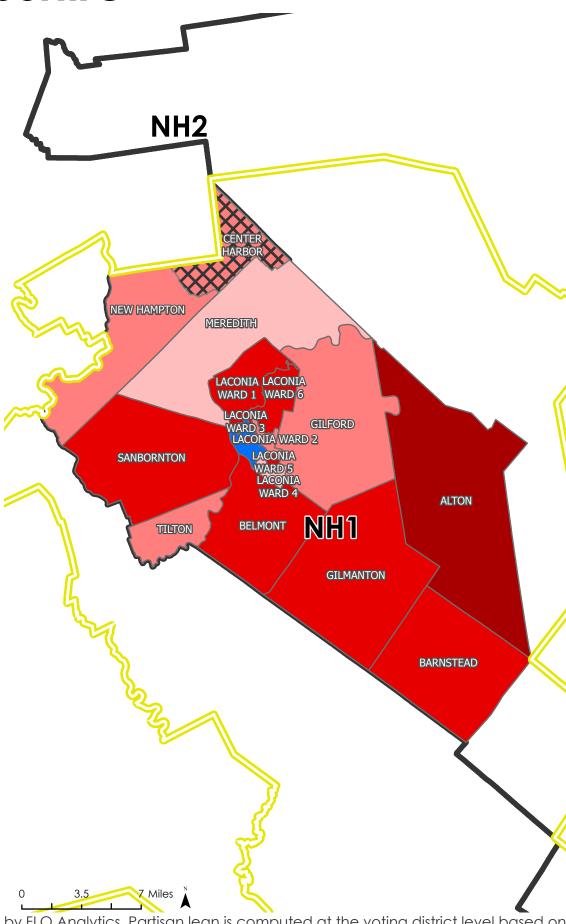
2012 District Boundary

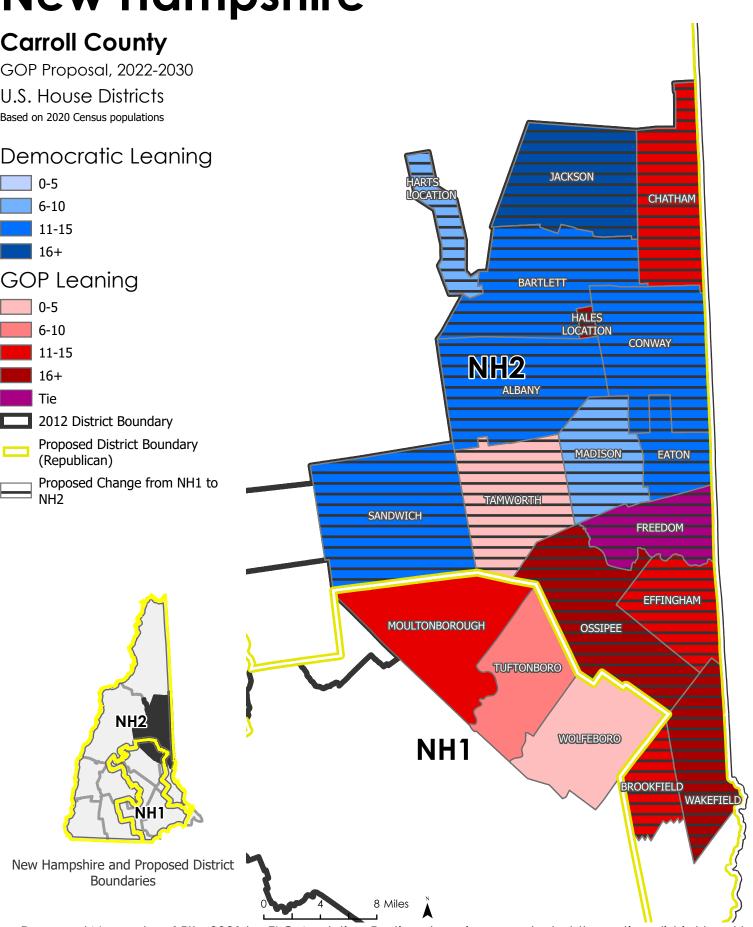
Proposed District Boundary (Republican)

Proposed Change from NH2 to



New Hampshire and Proposed District **Boundaries**





Cheshire County

GOP Proposal, 2022-2030

U.S. House Districts

Based on 2020 Census populations

Democratic Leaning

0-5

6-10

11-15

16+

GOP Leaning

0-5

6 1

6-10

11-15

16+

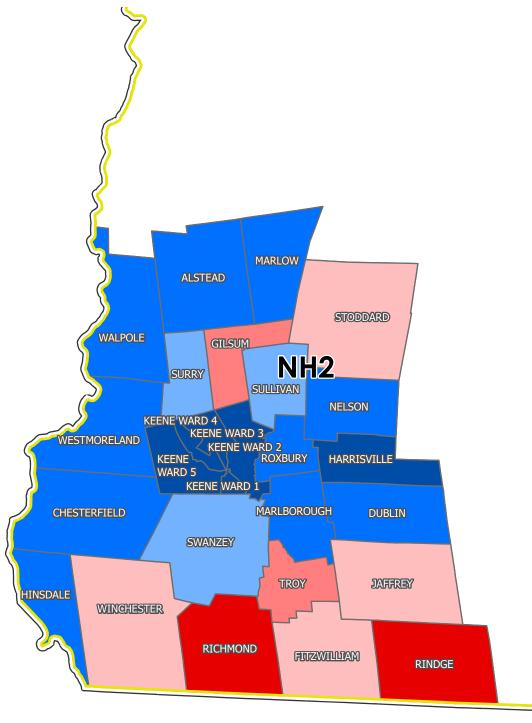
2012 District Boundary

Proposed District Boundary

(Republican)

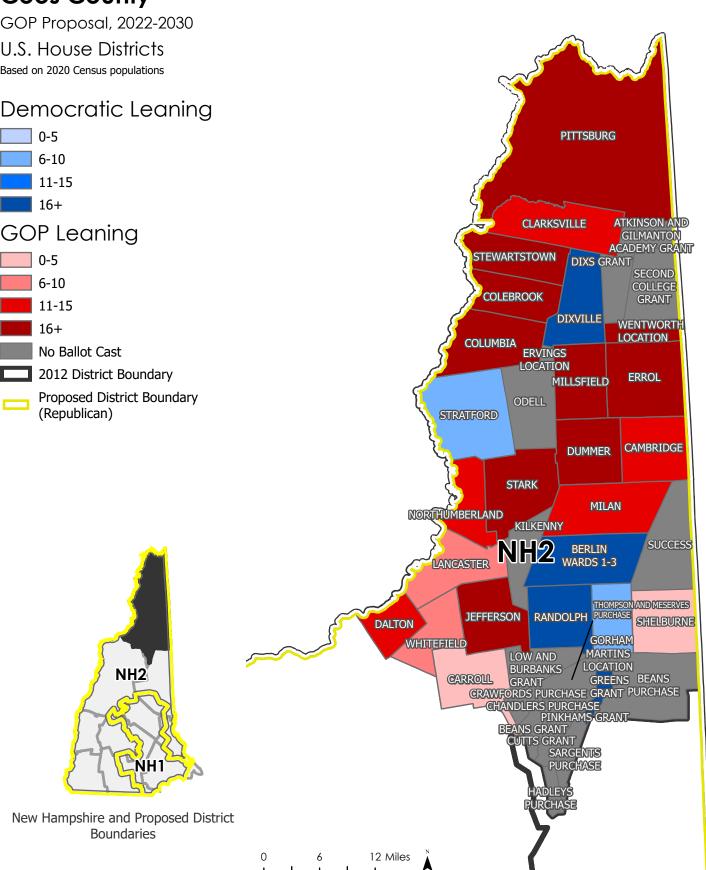


New Hampshire and Proposed District Boundaries



3.5 7 Miles

Coos County



New Hampshire Grafton County GOP Proposal, 2022-2030 U.S. House Districts Based on 2020 Census populations Democratic Leaning 0-5 6-10 LITTLETON 11-15 MONROE 16+ **BETHLEHEM** LYMAN GOP Leaning LISBON 0-5 SUGAR HILL 6-10 **BATH FRANCONIA** LANDAFF 11-15 16+ EASTON No Ballot Cast LINCOLN 2012 District Boundary LIVERMORE HAVERHILL BENTON **Proposed District Boundary** (Republican) WOODSTOCK Proposed Change from NH2 to PIERMONT WATERVILLE WARREN VALLEY NH2 THORNTON Proposed Change from NH1 to NH₂ ORFORD WENTWORTH **RUMNEY** CAMPTON LYME DORCHESTER **HOLDERNESS** GROTON PLYMOUTH **HANOVER** SHLAND CANAAN BRIDGEWATER LEBANON WARD 3 LEBANON LEBANON ORANGE ALEXANDRIA BRISTOL NH2 WARD 2 ENFIELD **GRAFTON** NH₁ NH1

Prepared November 15th, 2021 by FLO Analytics. Partisan lean is computed at the voting district level based on the 2020 Presidential two-party vote. GOP leaning districting are those in which Trump (R) garnered a larger share than his national average -i.e., 47.7%. Conversely, in Democratic leaning districts - denoted in blue - Trump's share of the two-party vote was less than 47.7% by the amount indicated in the legend.

11 Miles

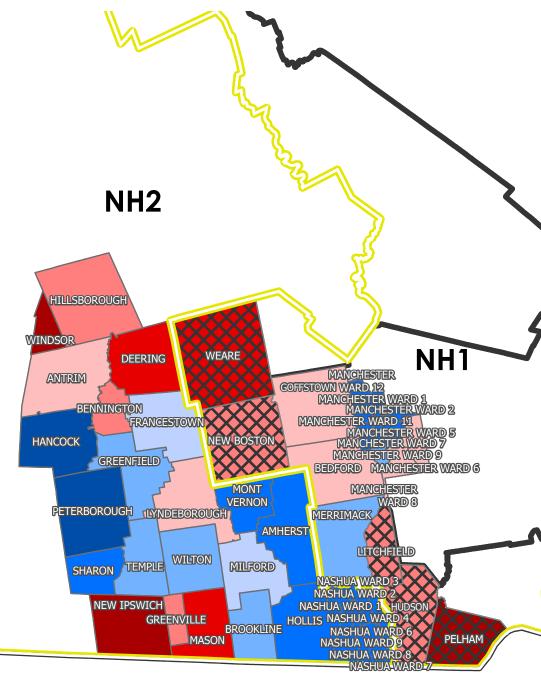
5.5

New Hampshire and Proposed District Boundaries

Hillsborough County GOP Proposal, 2022-2030 U.S. House Districts Based on 2020 Census populations Democratic Leaning 0-5 6-10 11-15 16+ GOP Leaning 0-5 6-10 11-15 16+ 2012 District Boundary **Proposed District Boundary** (Republican) Proposed Change from NH2 to

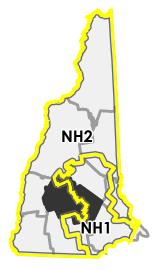


New Hampshire and Proposed District Boundaries

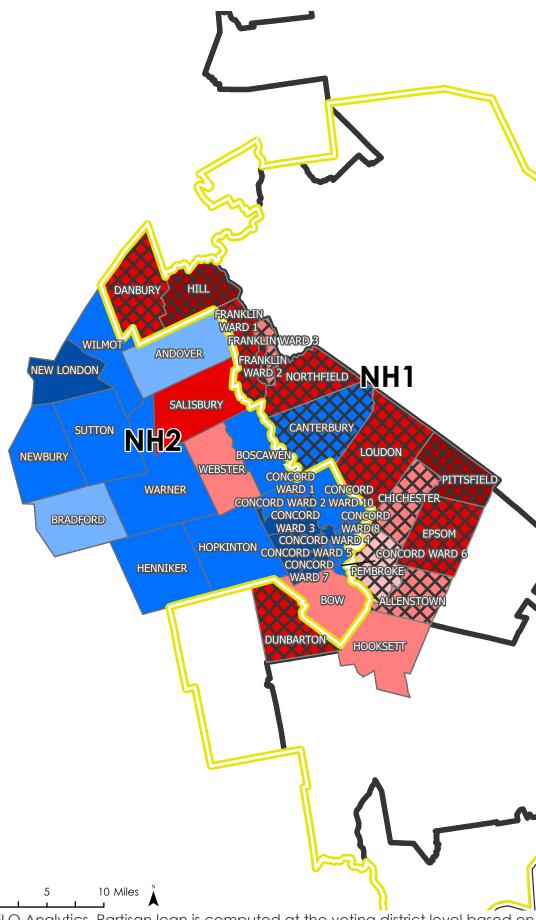


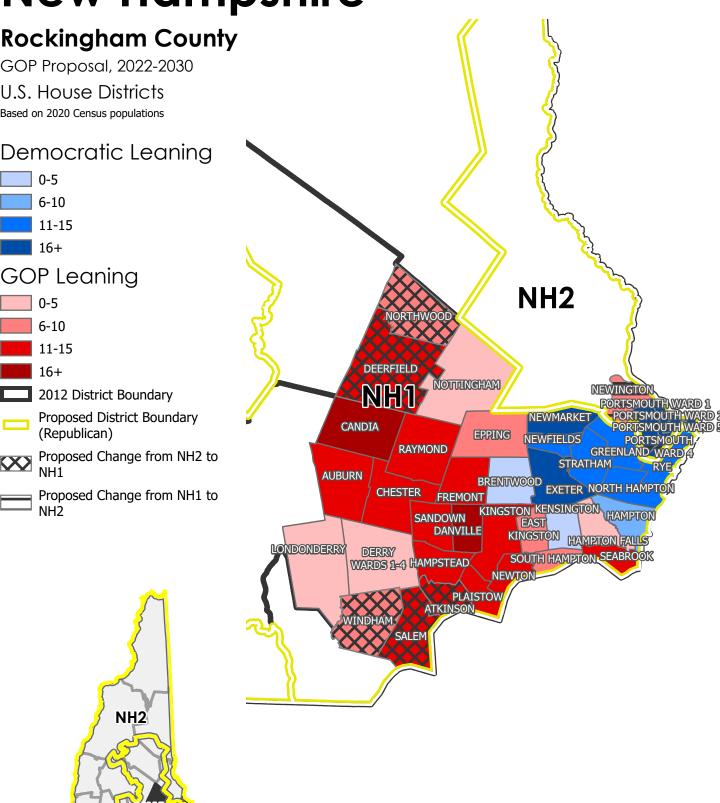
5 10 Miles

Merrimack County GOP Proposal, 2022-2030 U.S. House Districts Based on 2020 Census populations Democratic Leaning 0-5 6-10 11-15 16+ GOP Leaning 0-5 6-10 11-15 16+ 2012 District Boundary **Proposed District Boundary** (Republican) Proposed Change from NH2 to



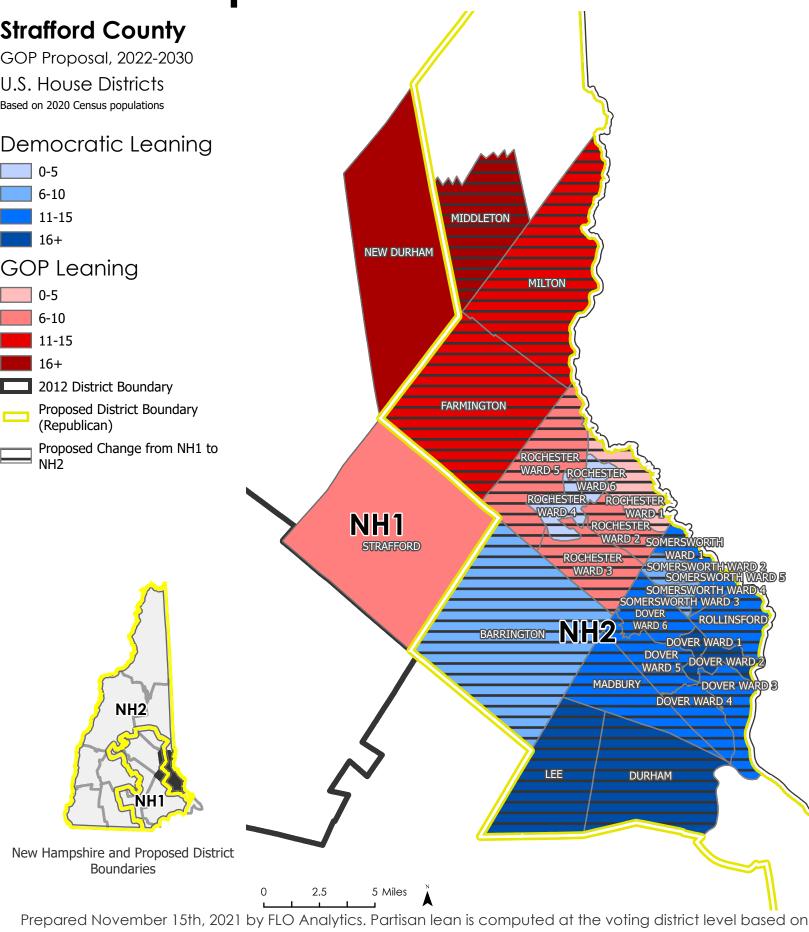
New Hampshire and Proposed District Boundaries

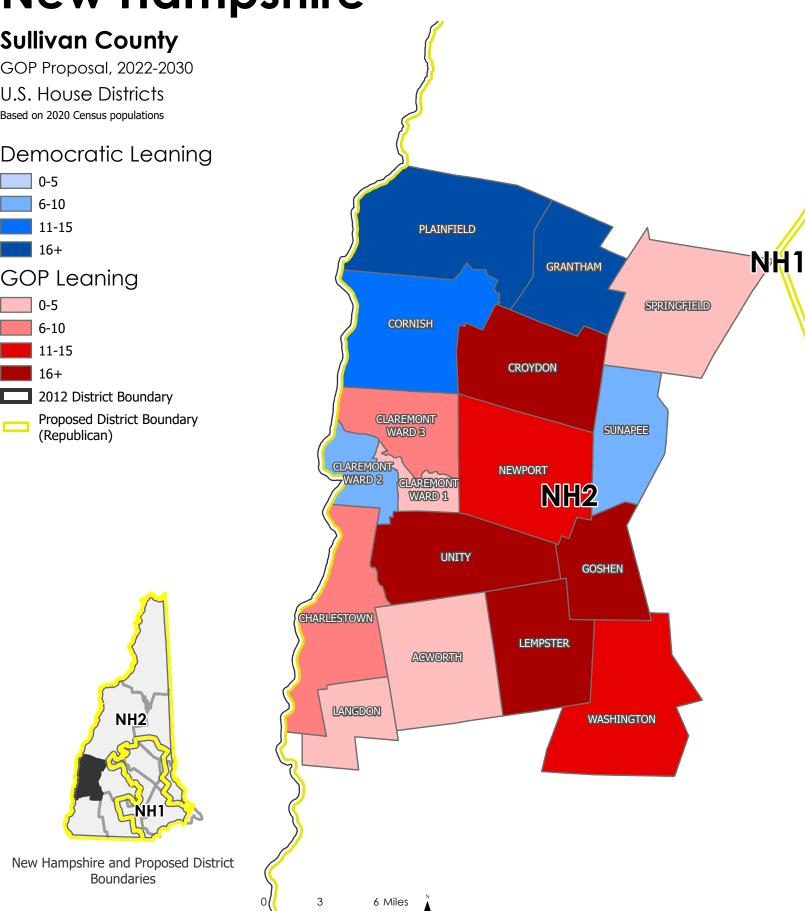




New Hampshire and Proposed District Boundaries

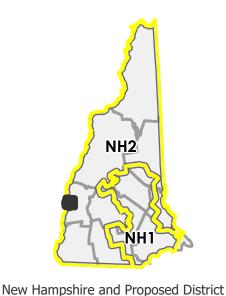
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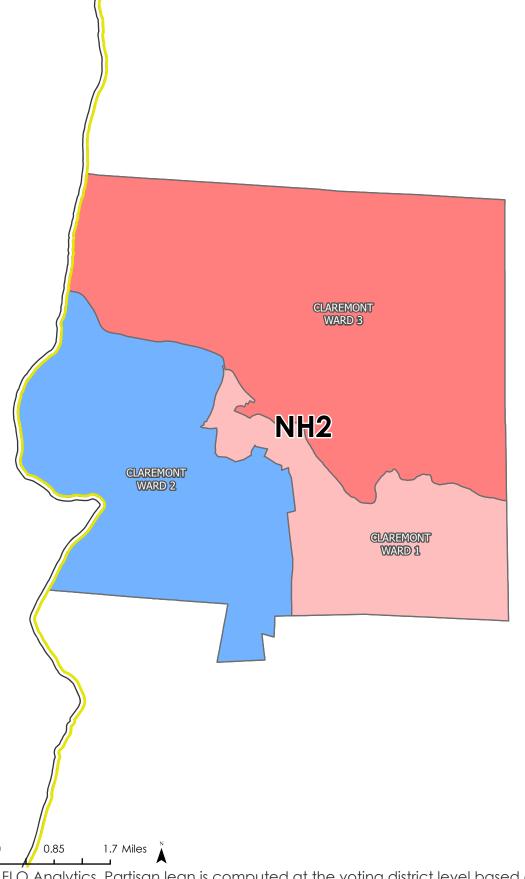


City

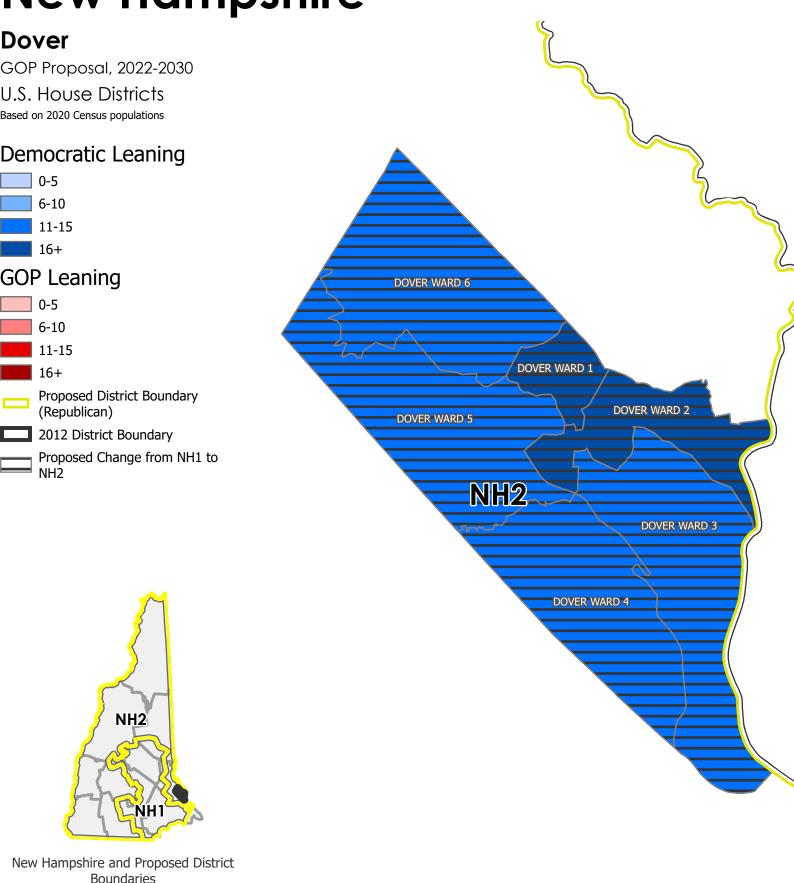
New Hampshire Claremont GOP Proposal, 2022-2030 U.S. House Districts Based on 2020 Census populations Democratic Leaning 0-5 6-10 11-15 16+ **GOP Leaning** 0-5 6-10 11-15 16+ **Proposed District Boundary** (Republican) 2012 District Boundary



Boundaries



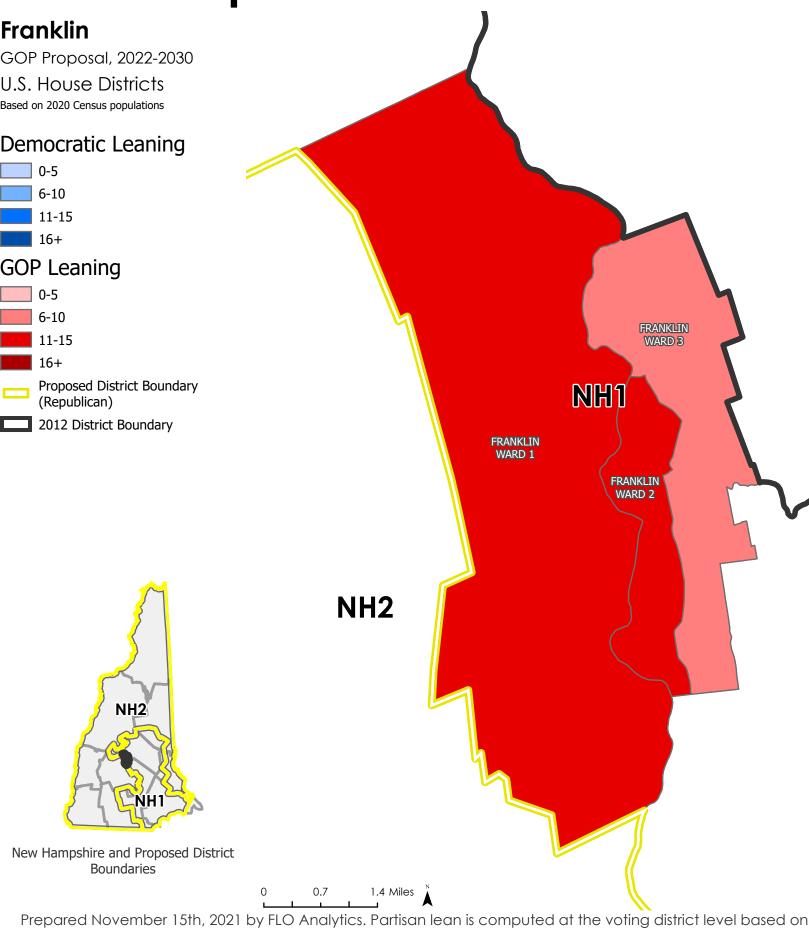
New Hampshire Concord GOP Proposal, 2022-2030 U.S. House Districts Based on 2020 Census populations Democratic Leaning NH₁ 0-5 6-10 11-15 16+ **GOP Leaning** 0-5 6-10 CONCORD 11-15 WARD 1 CONCORD 16+ WARD 10 CONCORD **Proposed District Boundary** WARD 2 (Republican) 2012 District Boundary CONCORD WARD 3 CONCORD WARD 9 NH2 CONCORD WARD 4 CONCORD WARD 8 CONCORD WARD 6 CONCORD WARD 5 CONCORD WARD 7 NH2 NH1 New Hampshire and Proposed District **Boundaries** 2 Miles



Prepared November 15th, 2021 by FLO Analytics. Partisan lean is computed at the voting district level based on the 2020 Presidential two-party vote. GOP leaning districting are those in which Trump (R) garnered a larger share than his national average -i.e., 47.7%. Conversely, in Democratic leaning districts - denoted in blue - Trump's share of the two-party vote was less than 47.7% by the amount indicated in the legend.

1.7 Miles

0.85



the 2020 Presidential two-party vote. GOP leaning districting are those in which Trump (R) garnered a larger share than his national average -i.e., 47.7%. Conversely, in Democratic leaning districts - denoted in blue - Trump's share of the two-party vote was less than 47.7% by the amount indicated in the legend.

Keene

GOP Proposal, 2022-2030

U.S. House Districts

Based on 2020 Census populations

Democratic Leaning

0-5

6-10

11-15

16+

GOP Leaning

0-5

6-10

11-15

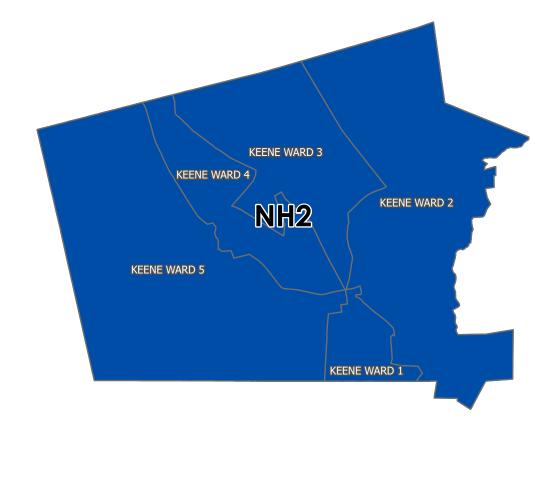
16+

Proposed District Boundary (Republican)

2012 District Boundary



New Hampshire and Proposed District **Boundaries**



2 Miles

Laconia

GOP Proposal, 2022-2030

U.S. House Districts

Based on 2020 Census populations

Democratic Leaning

0-5

6-10

11-15

16+

GOP Leaning

0-5

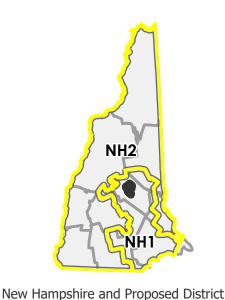
6-10

11-15

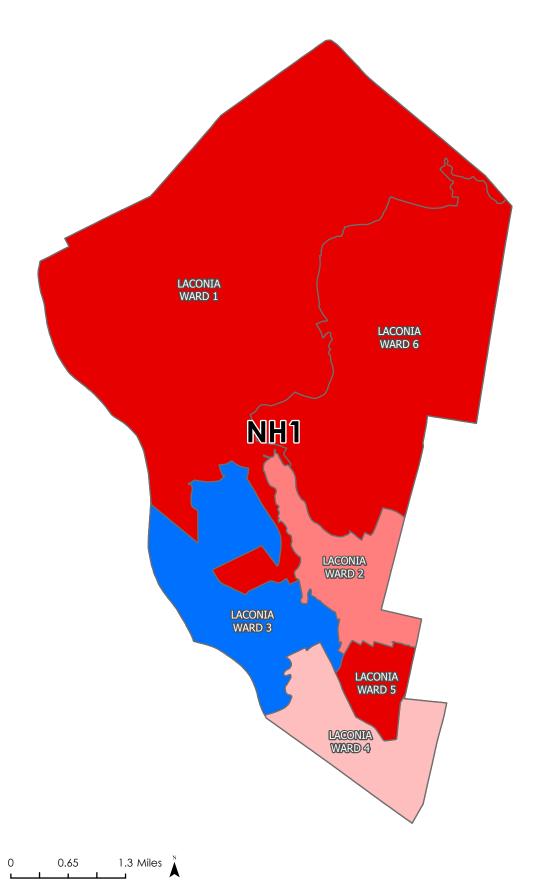
16+

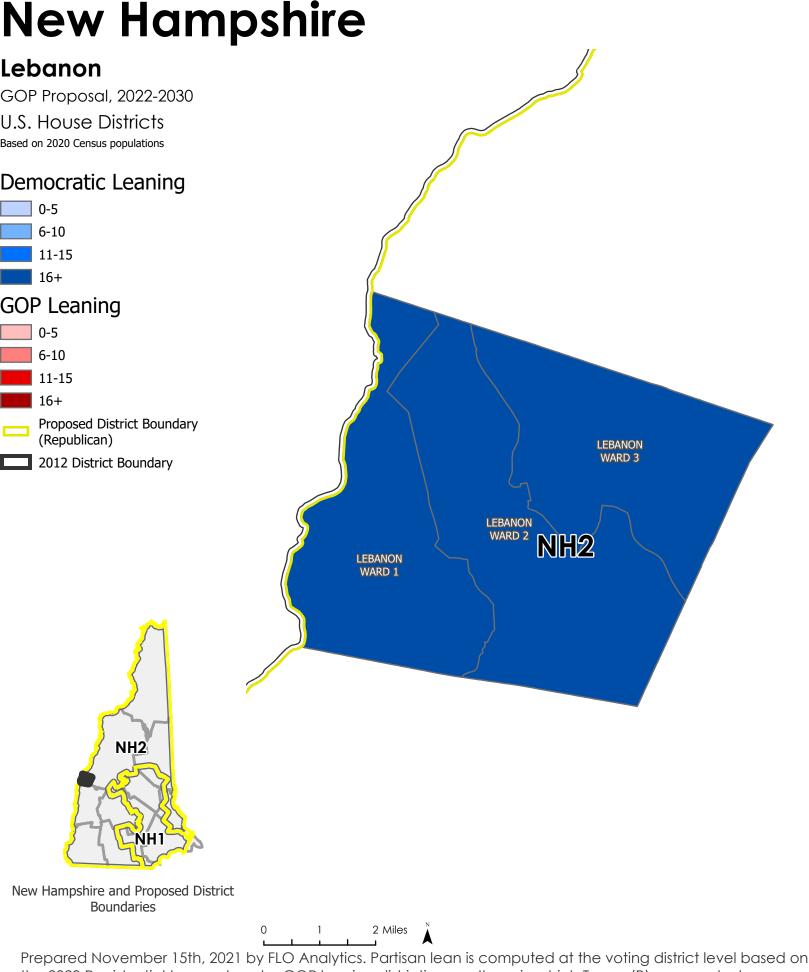
Proposed District Boundary (Republican)

2012 District Boundary



Boundaries





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Trump's share of the two-party vote was less than 47.7% by the amount indicated in the legend.

Manchester

GOP Proposal, 2022-2030

U.S. House Districts

Based on 2020 Census populations

Democratic Leaning

0-5

6-10

11-15

16+

GOP Leaning

0-5

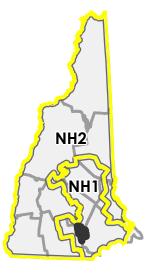
6-10

11-15

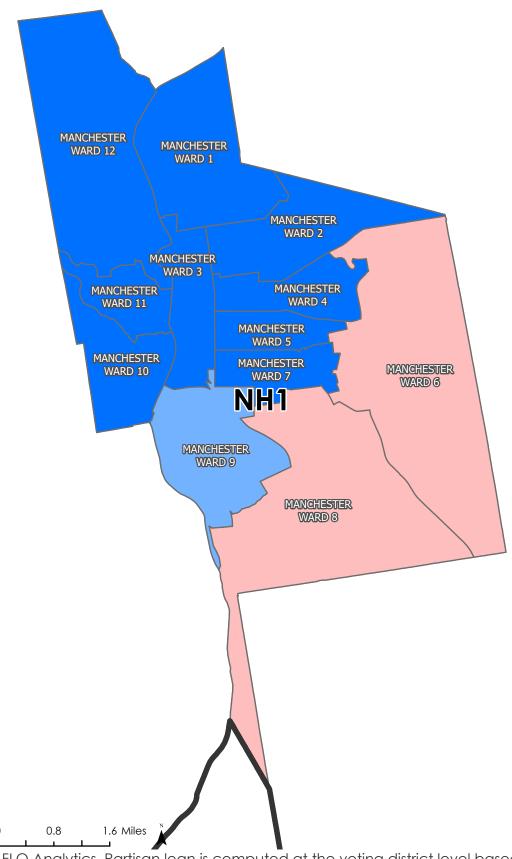
16+

Proposed District Boundary (Republican)

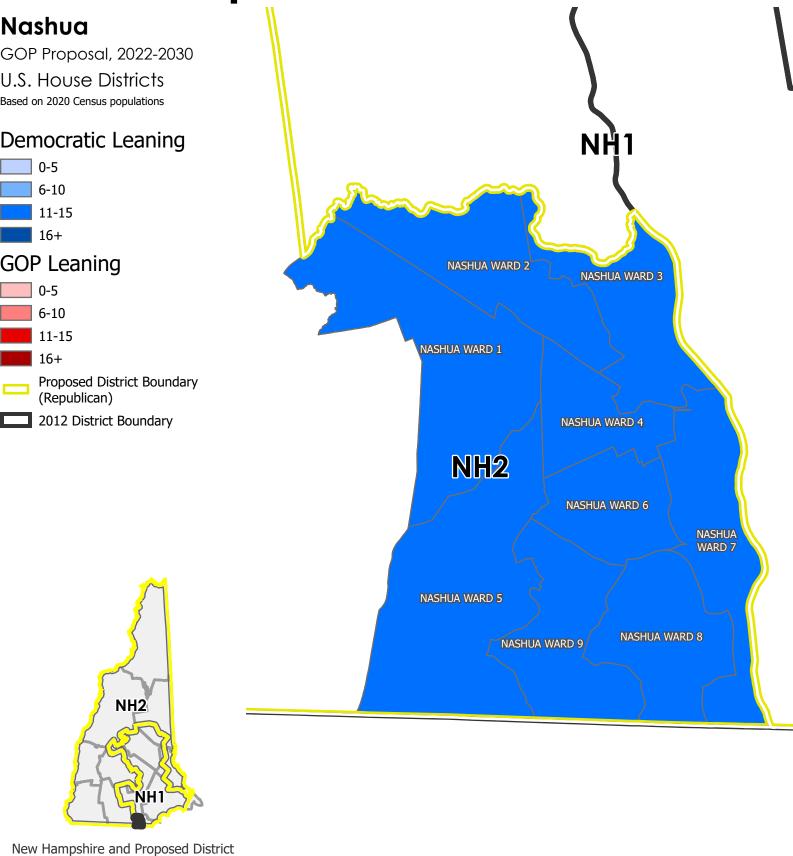
2012 District Boundary



New Hampshire and Proposed District **Boundaries**



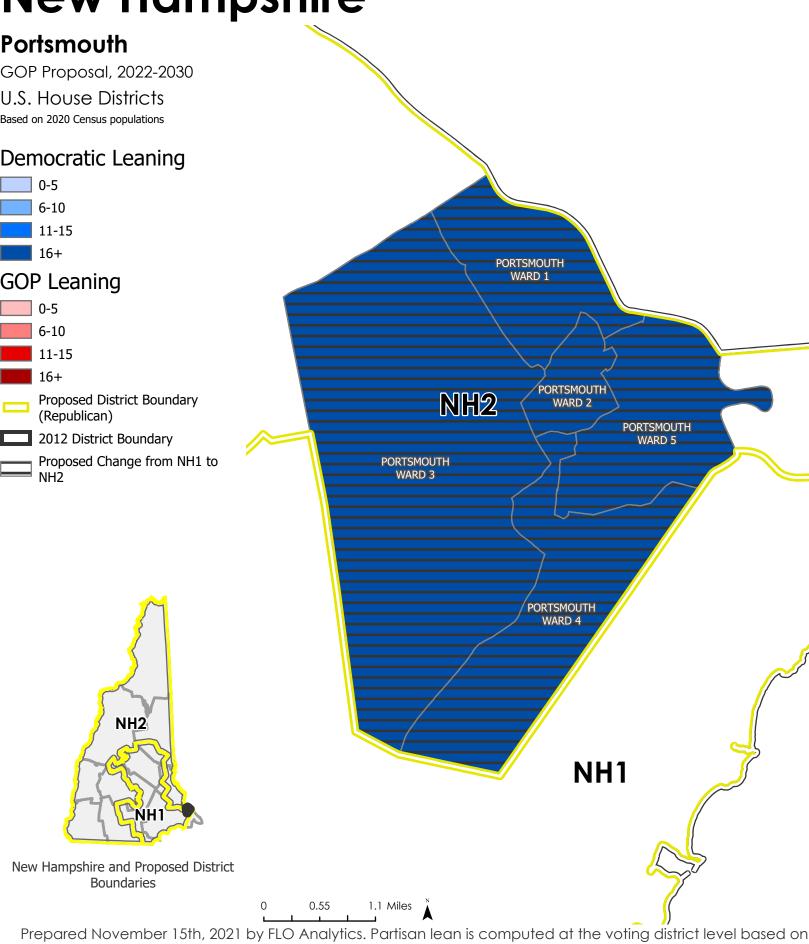
Boundaries



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1.5 Miles

0.75



New Hampshire Rochester GOP Proposal, 2022-2030 U.S. House Districts Based on 2020 Census populations Democratic Leaning 0-5 6-10 11-15 16+ **GOP Leaning** 0-5 6-10 11-15 16+ ROCHESTER WARD 5 Proposed District Boundary ROCHESTER (Republican) WARD 6 ROCHESTER 2012 District Boundary -WARD-1 Proposed Change from NH1 to NH2 ROCHESTER-WARD 4 NH₁ **ROCHESTER** WARD 2 **ROCHESTER** WARD 3 NH2 NH1 New Hampshire and Proposed District **Boundaries**

Prepared November 15th, 2021 by FLO Analytics. Partisan lean is computed at the voting district level based on the 2020 Presidential two-party vote. GOP leaning districting are those in which Trump (R) garnered a larger share than his national average -i.e., 47.7%. Conversely, in Democratic leaning districts - denoted in blue - Trump's share of the two-party vote was less than 47.7% by the amount indicated in the legend.

2 Miles



6-10 11-15

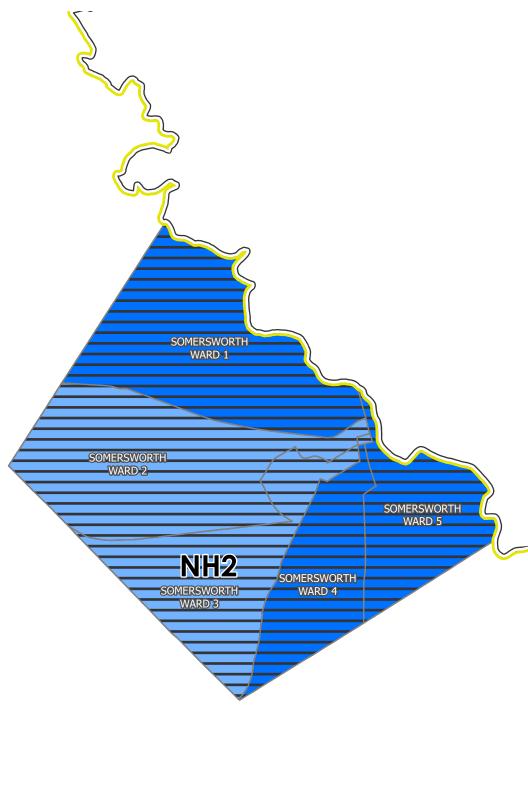


2012 District Boundary

Proposed Change from NH1 to NH2



New Hampshire and Proposed District Boundaries



0.55 1.1 Miles