# Local Partisan Context and Mental Health

Ryan Baxter-King<sup>a</sup>, Jacob R. Brown<sup>b</sup>, Ryan D. Enos<sup>c</sup>, Arash Naeim<sup>d</sup>, and Lynn Vavreck<sup>e</sup>

<sup>a</sup> Department of Political Science, University of Nevada, Reno; <sup>b</sup> Department of Political Science, Boston University; <sup>c</sup> Department of Government and Institute for Quantitative Social Science, Harvard University; <sup>d</sup> David Geffen School of Medicine, UCLA; <sup>e</sup> Department of Political Science, UCLA

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We find that Republicans who live in neighborhoods with a higher share of Democratic residents report increased levels of anxiety, depression, and loneliness compared to reports from Republicans in neighborhoods with a higher share of Republicans. Using a largescale national survey and fine-grained data on residential political context, we establish that these patterns persist even when examining partisans who live in the same ZIP codes, while controlling for other individual and geographic features. In contrast, Democrats' mental health reports shows no sensitivity to partisan context. For Republicans, the size of the relationship between partisan context and mental health is comparable to or larger than the correlation between mental health reports and other contextual features of residential areas, such as the way racial minorities respond to changes in the racial or ethnic composition of their local geography, and the way people generally respond to the share of their community living in poverty. The correlation is strongest for the most strongly partisan individuals, suggesting that politics is a significant factor in the relationship between partisanship and mental health.

Partisanship | Mental Health | Geography

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C cholars have increasingly treated partisanship in the United States as an important social identity. Consistent with this perspective, partisanship is associated with a range of non-political behaviors and characteristics, including consumption patterns (1), residential choices (2), and even stable individual traits such as personality (3). There is also evidence from across the social sciences of strong associations between residential context and a host of behaviors and attitudes, including voting (4-6), intergroup attitudes (7-10), partisanship (11–13), political donations (14), and health outcomes (15). In this paper, we draw on expectations from these previous findings to demonstrate that the partisan context of a residential area influences respondents' self-reported mental health. To do this, we link a rolling cross-sectional survey of 165,000 Americans fielded in 2020 to fine-grained measurements of the partisan context of counties and neighborhoods across the United States. The large scale and richness of the survey, along with the granularity of the geographic contextual data, allow us to compare individuals living in very close proximity to one another, both within counties and ZIP codes, thereby eliminating many potential confounds to the effect of partisan geography on mental health reports. Similar to other recent findings that show divergent partisan sensitivity to context (15), we show that Republicans' behavior varies with context, while Democrats' behavior does not: in largely Democratic residential areas, Republicans report significantly worse experiences with anxiety, depression, and loneliness relative to their fellow-Republicans living in largely Republican residential areas. In contrast, Democrats' mental health reports show no such sensitivity to partisan context.

Notably, these differences in mental health are observed among individuals who reside in the same place but have dif-

ferent partisanship, and therefore, distinct relationships with the partisan composition of the area. This within-place comparison directly controls for other features of neighborhoods that may affect mental health, allowing us to better isolate the effect of partisanship. Looking between places, we also find that other observable attributes of space are not driving these patterns: the relationship between partisanship and mental health reports persists even after accounting for population density, average household income, and other features of the local environment. The relationship is strongest among respondents with a strong self-reported partisan identity, suggesting that the effect is amplified among those for whom the partisan mismatch with their neighbors is most notable. Taken together, these results suggest that the association between contextual partisanship and mental health is not a function of general discordance with a neighborhood but may be caused instead by the interactions of people across party lines.

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Comparing these results to other identity-based contextual effects, we find, strikingly, that the mental health effects of being a political minority in one's neighborhood exceed those of being a racial minority in one's neighborhood (16, 17). The effect also exceeds the well-documented effect of contextual poverty on mental health (18–20).

Theory

A large body of research shows that context, and partisan context in particular, affects political behavior (21–23). Recent scholarship has even connected residential partisan context to choices about health and well-being: (15) showed that

# Significance Statement

Americans are increasingly divided by political party with differences extending beyond policy and into choices about quality of life and well-being. We connect the political context of people's neighborhoods to wellness by showing that Republicans' reports of mental health become increasingly worse as the proportion of Democrats in their neighborhood increases. Democrats show no such sensitivity. We find that the effects of being a political minority are comparable or larger in magnitude to the effects of being a racial or ethnic minority in a neighborhood; and to the effects of contextual poverty on mental health. These findings demonstrate the far-reaching implications of contemporary partisanship in the everyday lives of Americans and further our understanding of how social context can impact well-being.

Please provide details of author contributions here.

Please declare any competing interests here

<sup>&</sup>lt;sup>1</sup>A.O.(Author One) contributed equally to this work with A.T. (Author Two) (remove if not applicable).

<sup>&</sup>lt;sup>2</sup>To whom correspondence should be addressed. E-mail: author.twoemail.com

Republican take-up of COVID-19 mitigation strategies during the pandemic was a function of partisan residential context, wherein Republican residents were less likely to wear a mask or report an intention to get vaccinated against COVID-19 if they lived in a neighborhood that was primarily Republican, compared to Republicans living in neighborhoods that were primarily Democratic.

In addition to these findings about general health behaviors, mental health has also been connected to politics. For example, researchers have shown connections between political events such as election outcomes or terrorist attacks and depression (24, 25); and have demonstrated that political ideology conditions the manner in which adolescents internalize depressive symptoms (26).

Mental health has also been shown to be affected by residential context (20), including evidence that depression is affected by features of neighborhoods (18). Of particular note are studies showing social features of a neighborhood are linked to these outcomes, including findings that perceived social ties and social cohesion are related to depression (19).

We combine expectations from both literatures and investigate whether local partisan context affects self-reported mental health

#### **Data and Measurement**

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To test the relationship between mental health reports and local partisan context, we use data from state voter registration files combined with large-scale survey data that measures mental health outcomes with enough geographic reach to find partisans across a range of local contexts. The approach offered in (15) offers a validated procedure for answering this question, and we take this as a starting point for the data and models we use.

Voter Registration Data and Measures of Partisan Context. We use data from Brown and Enos (27) on the partisan composition of each survey respondent's ZIP code to measure the local political context of a neighborhood. To do this, we start with a complete list of registered voters across the United States in 2018, acquired from the vendor L2. This listing contains each person's exact residential address and information about their voter registration (for example, party registration in states that record this information). To make sure we are capturing an accurate measure of local partisan context, including the effects of episodic nonvoters who are missed when relying only on election outcomes, we measure the partisan context of an area by aggregating the partisanship of each registered voter in an area. We use party registration as a measure of individual partisanship where it is available, and, for voters not registered to a major party (either due to residing in a state that does not record partisanship or due to not registering with a major political party), we impute a voter's partisanship based on voter characteristics and precinct-level presidential vote data.\* Finally, we calculate the proportions of Democrats and Republicans by ZIP code, which is the smallest geographic unit in our data.  $^{\dagger}$  ZIP codes are similar in size to Census Tracts, which many social scientists use when representing neighborhoods.<sup>‡</sup> Figure S1 in the Supporting Information shows the distribution of partisan exposure by ZIP code for the survey sample, which is similar to the distribution for the nationwide voting population.§

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Survey Data and Measures of Mental Health. Our survey data were collected through a collaboration between researchers from the UCLA Division of Social Sciences, the David Geffen School of Medicine at UCLA, and Harvard Medical School. The project, known as the UCLA COVID-19 Health and Politics Project, is an internet-based nationwide cross-sectional survey representative of the U.S. adult population. The sample was provided by LUCID, a market research firm, with quotas set by UCLA investigators across nine categories to ensure balance. These data consist of eight cross-sectional waves, collected between May 2020 and December 2022, comprising a total of 165,000 people. Project managers at UCLA provided post-stratification weights, which make the data representative of the U.S. adult population.

The UCLA COVID-19 Health and Politics Project included reports of several mental health outcomes. We focus on three conditions that were measured using clinical scales: depression, anxiety, and loneliness. These scales have been shown by researchers to be valid and consistent measures even when self-administered outside a clinic (30, 31).

Depression is measured using the Patient Health Questionnaire-8 (PHQ-8) (32), which contains eight of the nine DSM-5 major depressive disorder symptom criteria (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition). We assess anxiety using the four-item Patient-Reported Outcome Measurement Information System (PROMIS) short form (33). Raw scores range from four to 20 and are converted to T-scores established in previous research. We measure loneliness using a short, three-item scale that measures three dimensions of loneliness: relational and social connectedness and self-perceived isolation. The range of outcomes ranges from three to nine, with researchers grouping people who score three to five as "not lonely" and people with scores in the six to nine range as "lonely" (34). We rescale each mental health outcome so that it ranges from zero to one, such that lower values represent better (meaning lower levels of reported anxiety, depression, or loneliness) mental health outcomes. For additional information, see Supporting Information Section

Descriptive Relationship Between Mental Health Reports and Partisan Context. We combine the survey measures of mental health symptoms with the measures of local partisan context derived from the nationwide voter registration files to illustrate the relationships between the partisan composition of a person's neighborhood and mental health reports. Since our expectations concern the way a person's partisanship interacts

<sup>\*</sup>The imputation process results in over 90% of voters coded as having a clear partisan preference, which matches survey data on unaffiliated voters' partisan preferences (28, 29).

TSee (27) for complete information on data, measurement, and the imputation process specifically (27) validate this imputation process by showing accurate prediction of individual survey measures of partisanship and high correlation with presidential vote share at aggregate geographic levels.

 $<sup>^\</sup>ddagger$ As a comparison, consider the median U.S. ZIP code had 1,460 registered voters in 2018 while the median Census Tract had 2,275.

In SI Section S6, we present versions of our main effect estimates using alternative measures of Zip code partisan context from an alternative data source: TargetSmart voter data. These include: 1) the Zip Code proportion of Republican registrants out of total registered voters (without any imputed partisanship), 2) the Zip Code proportion of Republican registrants out of total Democratic and Republican registrants (without any imputed partisanship), and 3) using Zip Code averages of TargetSmart's modeled partisan scores. We find similar results across all strategies for measuring partisan context.

See Tausanovitch et al (2021) for a detailed description of the survey methodology, including assessments of the representativeness of the samples.

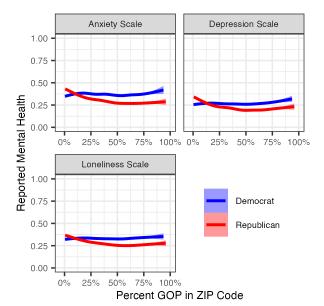


Fig. 1. Association between ZIP Code Partisan Context and Anxiety, Depression, and Loneliness, by Partisanship

Lines show the LOESS fit for rates of anxiety (top left panel), depressive symptoms (top right panel), and loneliness (bottom left panel), separately for Democrat (blue lines) and Republican (red lines) respondents, across the percent of registered Republicans in a ZIP code. Lower values represent lower levels of reported anxiety, depression, or loneliness.

with their neighborhood's partisan context, we present results separately for Democrats and Republicans.

Figure 1 shows the bivariate relationship between the percent Republican in respondents' ZIP codes and the severity of respondents' reports of anxiety, depression, and loneliness. Consistent with previous findings (26), Republicans, on average, report better mental health outcomes than Democrats (see Figure S2 in the Supplementary Material for average outcomes by party across all respondents). Also consistent with previous research (15), the relationship between local partisan context and mental health is different for Republicans and Democrats. For Republicans, mental health reports, across all outcomes, improve as the share of Republicans in a neighborhood increases. The tendency for Republicans to report better mental health than Democrats is reversed in ZIP codes with the lowest percent GOP, such that Republicans in heavily Democratic areas report more anxiety, depression, and loneliness than Democrats in those places. Republicans' reports of mental health decline as their residential neighborhoods shift from nearly all Democratic to roughly 50 percent Democratic, at which point, the mental health reports level out and remain relatively steady. In contrast, the average mental health of Democrats appears relatively flat across all places. Democrats report being no lonelier and perhaps being only slightly more anxious or depressed as they move to ZIP codes with high shares of Republicans.

## **Empirical Strategy and Results**

Accounting for Sorting and Confounding Variables. The graphical presentation in Figure 1 could be a product of a causal relationship between local partisan context and mental health

for Republicans, but this descriptive analysis is also consistent with two other potential explanations. First, mental health status may be correlated with selection into places with specific types of partisan composition. Second, whether a voter lives in a more or less Republican ZIP code is correlated with a variety of other contextual factors, such as the racial and ethnic identities of residents, the urbanicity of the ZIP code, or other factors affecting quality of life, including crime and disorder. As such, the bivariate relationship between local partisan context and mental health outcomes could be driven by other aspects of respondents' environments, rather than partisan composition.

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To address inferential challenges related to selection and confounding variables, we present results from two estimation strategies. First, we use regression models to compare mental health reports of survey respondents who reside in the same county but who live in more or less Republican ZIP codes. Including county fixed effects accounts for any unobserved confounding variables that may vary across counties, such as crime or poverty levels. In these models, we also control for several ZIP code-level factors that might confound the relationship between local partisan context and mental health. Specifically, the share of racial groups in the ZIP code, average education levels, average household income, and population density, all measured using data from the 2014-2018 American Community Survey, to match the partisan context variables, which are measured using data from 2018 voter data. Thus, in these within-county models, we are comparing survey respondents with the same partisanship, who are similar along individual demographics, who live in the same county, and who live in Zip Codes with similar demographic profiles but differ in their partisan composition. From this comparison we estimate the isolated relationship between Zip Code partisan composition and mental health outcomes separately for Democrats and Republicans in our sample.

Second, we present a within-ZIP code analysis that is more demanding and that more rigorously interrogates the differential response between Democrats and Republicans to local partisan context. By using ZIP code fixed-effects and interacting Zip Code partisan context with survey respondent partisanship, we compare the mental health reports of Democrats and Republicans from the same ZIP codes. This narrows the set of variables that could produce spurious divergent responses between Democrats and Republicans to factors that differ across co-partisans but are unrelated to the geographic sorting process at the Zip Code level. Combined with individual-level controls and the inclusion of contextual Zip Code variables beyond partisan composition, this estimation strategy makes it much more likely that estimated effects are driven specifically by the interaction of the respondent's party identification with the partisan composition of their ZIP code.

In both estimation strategies, we interact voters' party affiliation with the share of voters in the ZIP code who are Republicans, allowing us to test whether the effect of local partisan context differs between Democrats and Republicans. We also interact each respondent's partisanship with other contextual variables associated with neighborhoods to help ensure that the differential effects by partisanship are not caused by partisan responses to other neighborhood factors that happen to co-vary with ZIP code partisanship. These contextual factors include the share of white population in the

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Table 1. Within-County Models of Neighborhood Partisanship

	Anxiety Scale	Depression Scale	Loneliness Scale
Share GOP	-0.009 (0.020)	-0.018 (0.019)	0.014 (0.025)
Republican	-0.009 (0.009)	0.003 (0.009)	-0.006 (0.011)
Republican * Share GOP	-0.081 (0.020) ***	-0.066 (0.019) ***	-0.063 (0.024) **
Republican * Share White	0.005 (0.014)	-0.009 (0.013)	-0.017 (0.017)
Republican * Share College and Above	-0.004 (0.022)	0.008 (0.022)	0.033 (0.027)
Republican * Median HH Income, Thousands	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Republican * Pop Density, 100,000 People per Sq. Mi.	0.081 (0.030) **	0.075 (0.025) **	0.038 (0.031)
Individual Controls	✓	✓	✓
ZIP code Controls	$\checkmark$	$\checkmark$	$\checkmark$
Survey Wave Fixed Effect	$\checkmark$	$\checkmark$	$\checkmark$
County Fixed Effect	$\checkmark$	$\checkmark$	$\checkmark$
N	136,800	135,348	135,768
R-Squared	0.225	0.235	0.167
Adj. R-Squared	0.208	0.218	0.148

Full model: See Table S1 for individual controls and wave fixed effects

P-Value thresholds: 0.1 + 0.05 \* 0.01 \*\* 0.001 \*\*\*

ZIP code, the share of the population with a college or post-graduate education, the median household income, and the population density. Both models also control for individual-level co-variates: age, gender, household income, education, race and ethnicity, and self-reported measures of physical health.

**Comparing Individuals within Counties.** For each of the three mental health outcomes, we estimate the following regression.

$$Y_{i} = \alpha_{c} + \eta_{w} + \gamma \operatorname{Republican}_{i} + \theta [\operatorname{Share GOP}]_{z} + \tau (\operatorname{Republican}_{i} * [\operatorname{Share GOP}]_{z}) + \delta \mathbf{W}_{z} + \lambda (\operatorname{Republican}_{i} * \mathbf{W}_{z}) + \beta \mathbf{X}_{i} + \epsilon_{iz}$$
[1

where  $\alpha_c$  is the county fixed effect,  $\eta_w$  is the survey wave fixed effect,  $\mathbf{W}_z$  are the contextual covariates for ZIP code z,  $\mathbf{X}_i$  are the other individual covariates for voter i, and  $\epsilon_{iz}$  is the error term. Our quantities of interest are  $\theta$ , which represents the effect of ZIP code proportion Republican on mental health outcomes for Democrats, and  $\tau$ , which represents the difference in the effect of ZIP code partisanship for Republicans compared to Democrats. Standard errors are clustered at the ZIP code level.

The results of this regression are displayed in Table 1. Within counties, looking across ZIP codes with varying shares of partisans, while also controlling for individual- and ZIP code-level covariates, results suggest that local partisan context affects the mental health reports of Republicans differently from Democrats for depression, anxiety, and loneliness. The coefficient on  $Share\ GOP$  estimates the effect of local partisan context on Democrats in the sample. The small and statistically insignificant coefficients for all mental health outcomes indicate that Democratic reports of mental health do not vary with the percentage of Republicans in their ZIP Codes. The

coefficient for Republican is also near-zero and not statistically significant. This suggests that, on average, there are only small differences in mental health reports between Republicans and Democrats in highly Democratic Zip Codes, once the covariates in our model are taken into account. In contrast to the minimal effects of partisan context among Democrats, the model estimates a statistically different effect of local party context for Republicans: the negative coefficient on Republican\*ShareGOP suggests Republicans react differently to increasing shares of Republicans than Democrats do, with better mental health reports on all three measures for Republicans as they live in more Republican ZIP codes within a county. These differences are visualized in Figure 2.

Similar differences across party do not emerge for the racial or educational composition of a ZIP code, or for changes in the median household income. Only changes in population density exert similarly differential effects, with Republicans showing increased levels of anxiety and depression relative to Democrats as density increases in the ZIP code. Importantly, the differences in the effects on mental health outcomes for Democrats and Republicans in this test emerge even after accounting for this relationship.

Comparing Individuals within ZIP codes. To further test these relationships, we compare the mental health reports of Democrats and Republicans living in the *same* ZIP codes by including ZIP code fixed effects in the model. This estimation strategy accounts for any unobserved ZIP code-level confounders that are not accounted for in the within-county analysis.

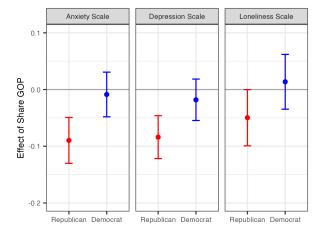
As in the within-county analysis, we interact voter partisanship with the share of the ZIP code that is Republican. However, unlike in the previous analysis, the within-ZIP code estimation strategy cannot estimate the direct effect of local party context on mental health because the measure of lo

Fig. 2. Effect of Republican Share of Neighborhood by Party for Anxiety, Depression, and Loneliness

Points represent the marginal effect of Share GOP for Republicans (red) and Democrats (blue). Bars represent 95% confidence intervals.

cal party context is subsumed by the ZIP code fixed effect. Instead, this model estimates whether Democrats and Republicans respond differently to ZIP code partisanship, net of other individual- and ZIP code-level factors.

For this test, we estimate a regression of the form:

$$Y_i = \alpha_z + \eta_w + \gamma \text{Republican}_i + \tau (\text{Republican}_i * [\text{Share GOP}]_z) + \lambda (\text{Republican}_i * \mathbf{W}_z) + \beta \mathbf{X}_i + \epsilon_{iz}$$
 [2]

where  $\alpha_z$  is the ZIP code fixed effect,  $\eta_w$  is the survey wave fixed effect, and  $\tau$  is the quantity of interest (the extent to which the mental health reports of Republican and Democratic respondents differ as the share of Republicans changes across ZIP codes).  $\mathbf{W}_z$  indicates the contextual covariates for ZIP code z, interacted with  $Republican_i$  to account for a set of potential confounding contextual factors. Standard errors are clustered at the ZIP code level. A statistically significant coefficient for  $\tau$  suggests that Democrats and Republicans from the same ZIP codes will report increasingly different mental health outcomes as partisan compositions of the ZIP codes change. Negative coefficients suggest that Republicans report improved anxiety, depressive symptoms, and loneliness relative to Democrats in the same ZIP code.

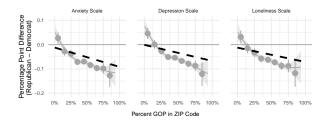


Fig. 3. Partisan Gap in Anxiety, Depression, and Loneliness By ZIP Code Share Republican

Points plot the binned scatterplot of within-ZIP code differences in Republican and Democratic anxiety, depression, and loneliness by Share GOP in the ZIP code. Light grey line plots the LOESS fit from the binned scatter plot. Black dotted line plots the fit from the estimated within-ZIP code regressions.

Table 2 presents the estimates from this analysis. The coefficient on Republican\*ShareGOP is negative, and statistically signficant, suggesting that Democrats and Republicans report increasingly different mental health as the percent GOP in the ZIP code increases. These within-ZIP code estimates are presented visually in Figure 3.

**Exploring Implications.** To corroborate our interpretation that the partisanship of a neighborhood affects people's wellness reports specifically because of politics, we test several implications derived from this idea.

First, we expect that the political connection between local partisan context and mental health should be greater for strong partisans relative to those with weak party associations. It has been shown that political party is a more important part of a respondents identities if they report thinking of themselves as "strong" Republicans or Democrats (35); and also that strong partisans tend to be more engaged with politics and to hold more extreme issue positions than weak partisans (36). Because of these things, strong partisans may be more likely to understand the implications of their neighbor's political leanings and to have issue positions out of touch with their opposite-party neighbors or in touch with co-partisans, thereby increasing the effects of partisan context on mental health. To test for this pattern of effects, we separate partisan voters by their self-reported strength of attachment to a party. If partisan neighborhood context affects people as we suggest, then the effects of being reminded of potential or realized political outcomes and ideas that may be inconsistent with one's preferences should be exacerbated for strong partisans relative to weaker ones.

To conduct this test, we subset our Republican and Democratic respondents into strong and weak partisans. We then re-estimate the within-county code models on each subsample. Thus, for each subsample, the estimated impact is the effect of partisan composition on Democrats and Republicans with the same strength of partisanship living in the same county, controlling for other Zip Code demographics.

We report the results of this analysis in Figure 4. As implied by our idea that the relationship between mental health and partisan context is driven by politics, we find a stronger effect of partisan composition for strong partisans than for weak partisans. This interaction with the strength of party

See the SI for within-Zip Code results as well as models for independents who lean towards one of the two major political parties.

Table 2. Within-ZIP code Models of Neighborhood Partisanship

	Anxiety Scale	Depression Scale	Loneliness Scale
Republican	-0.012 (0.009)	-0.001 (0.009)	-0.012 (0.011)
Republican * Share GOP	-0.080 (0.022) ***	-0.066 (0.021) **	-0.059 (0.027) *
Republican * Share White	0.004 (0.015)	-0.009 (0.014)	-0.013 (0.019)
Republican * Share College and Above	-0.006 (0.024)	0.009 (0.025)	0.049 (0.030)
Republican * Median HH Income, Thousands	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Republican * Pop Density, 100,000 People per Sq. Mi.	0.093 (0.030) **	0.080 (0.024) ***	0.042 (0.029)
Individual Controls	<b>√</b>	✓	✓
Survey Wave Fixed Effect	$\checkmark$	$\checkmark$	$\checkmark$
ZIP code Fixed Effect	$\checkmark$	$\checkmark$	$\checkmark$
N	136,800	135,348	135,768
R-Squared	0.394	0.400	0.348
Adj. R-Squared	0.299	0.305	0.245

**Full model:** See Table S2 for individual controls and wave fixed effects **P-Value thresholds:** 0.1 + 0.05 \* 0.01 \*\* 0.001 \*\*\*

identification lends further credence to the possibility that there is something about the political culture of a neighborhood that affects people's mental health reports among Republicans.

Second, we look over time at moments when politics may be more salient than usual: elections. Election outcomes have previously been linked to mental health (37–40), suggesting the possibility that neighborhood signals, like yard signs, bumper stickers, flags, and other political expressions, exacerbate the effect we uncover by raising the salience of an election's outcome. We take advantage of the longitudinal nature of our survey data to test whether the relationship between partisan context and mental health is strongest around general elections. Using the same analytic approach as we outline above, we find no increased effect proximal to elections (see Supporting Information Section S4). This runs counter to our expectations and to our previous test, suggesting that if politics is the channel through which this effect operates, it does so chronically, not episodically.

Third, there may be social or cultural factors tied to politics that contribute to how people are affected by being outpartisans where they live. Having a sense of belonging has been described as a person experiencing "a fit or congruence with other people, groups, objects, organizations, environments, or spiritual dimensions through shared or complementary characteristics" and has been shown to be an important component of mental health (41). It has been directly related to mental health outcomes in clinical research (42–44), including through the effects of neighborhoods and communities (45, 46).

Living in a discordant environment, where a person is exposed to stimuli with which they disagree or feel uncomfortable, may lead to a diminished sense of belonging. In a political context, this might mean that, as above, contextual cues signal to a person whether they belong and therefore affect their sense of belonging. Sense of belonging may also be affected by friendship networks, which are also tied to mental health (47, 48) and also to partisanship. Consistent with this, survey evidence from 2022 noted that the average American's social

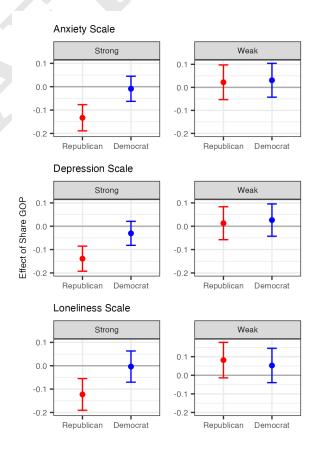


Fig. 4. Effect of Republican Share of Neighborhood for Anxiety, Depression, and Loneliness by Strength of Party Identification (Within-County)

Points represent the marginal effect for each subgroup: red for Republicans, blue for Democrats. Bars represent 95% confidence intervals.

network is sorted by political party in a manner comparable to sorting on race or religion (49). Crucially, this does not require people to be choosing their friends based on partisanship, but rather only that attributes correlated with partisanship could influence the tendency to form friendships.

Such social ties are often used by academics to define neighborhoods (50), and if a person has fewer friendships or fewer close friendships as a consequence of having fewer people in their neighborhood with attributes that might lead to friendship, this could also affect mental health. As (19) point out in their discussion of the association between social ties and neighborhood environments, these ties can affect people's feelings about a neighborhood generally: "the density of social ties in a neighborhood and the level of reciprocal exchanges and social cohesion among neighbors may influence residents' feelings of safety and counteract the stressful cues in their neighborhood environments."

One of our survey waves included questions about the places where respondents live, including whether they felt they could express themselves politically there, liked where they lived generally, had access to their preferred cultural or social activities, or wanted to move neighborhoods but still keep the same kinds of resources they have in their current spot. The survey also measured respondents' general coping ability as well as their positive and negative affect towards where they live. We expect people who are out-partisans in their neighborhoods to report a lower sense of belonging to the community and feel less comfortable expressing themselves politically relative to people in the same party who live in like-minded neighborhoods.

In Figure 5, we plot the average levels of these survey outcomes against Zip Code partisan composition separately for both Democrats and Republicans. Results suggest that Republicans and Democrats in more partisan-congruent ZIP codes report feeling more comfortable expressing themselves politically and less interested in moving neighborhoods relative to their co-partisans in less congruent neighborhoods. Notably, Republicans in more Republican areas are also more likely to say that they have access to cultural activities they enjoy as their neighborhoods become more Republican. These patterns persist in models with county fixed effects and individual-level demographic controls. Because these questions were asked on only one wave of the survey, we are under-powered to estimate the full model specification with Zip code controls and their interactions with individual-level partisanship, however, we include these results in SI Section S3.

These results suggest that politics may not be the sole factor in shaping how partisan context affects mental health — social and cultural factors like a feeling of belonging and the availability of other resources may also play a role.

Comparing the Effect of Local Partisanship to Other Contextual Variables. Our results show that political misalignment with neighbors harms mental health reports above and beyond other neighborhood factors, but this effect may not be unique to politics. Racial or ethnic minorities often feel less at home when their neighbors do not share their identities. Here we ask whether political mismatch produces a similar effect on well-being as being mismatched on other dimensions.

Specifically, we examine the interactions of respondents' race (white or Black), education (not college or college or above), income (high or not high), and parental status (no

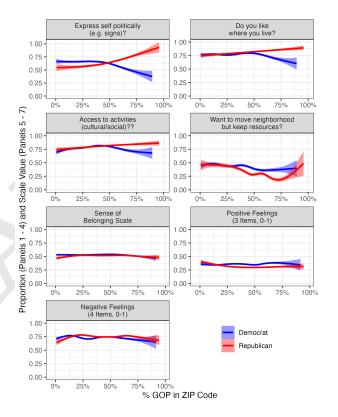


Fig. 5. Association between ZIP Code Partisan Context and Attitudes about Neighborhood

Lines show the LOESS fit for each survey outcome, separately for Democrat (blue lines) and Republican (red lines) respondents, across the percent of registered Republicans in a ZIP code.

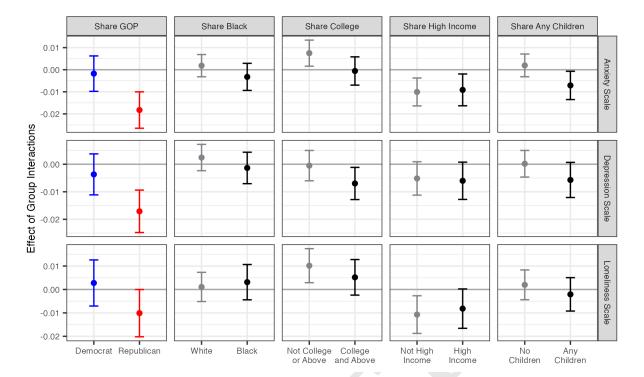


Fig. 6. Effect of Republican Share of Neighborhood and Other Contextual Factors for Anxiety, Depression, and Loneliness

Points represent the marginal effect for each subgroup. Bars represent 95% confidence intervals. Share GOP, Share Black, Share College, Share High Income, and Share Any Children are normalized for comparability.

children or children) with the racial (percent Black) and educational (percent with college degree) compositions of their neighborhood, the wealth that surrounds them (share of high-income households), and the family orientation of their neighbors (share of people who have children living in their households), respectively.

We re-estimate the within-county model four times, each time swapping in a different trait for partisanship. The traits are: race (White=1, Black=0), education (college degree=1), income (high=1), and parental status (children=1). In every iteration we interact the individual trait with the corresponding ZIP-code context. The coefficient on this interaction is our focus. All contextual variables are standardized such that a coefficient always reflects the effect of a one-standard-deviation rise in the contextual measure.

Previous work links being a demographic minority in one's neighborhood to poorer mental health (16, 17). Yet, our Figure 6 reveals that, of all trait-by-context interactions we test, the match between an individual's partisanship and the partisan makeup of their ZIP code shows a consistently strong relationship with all three mental-health measures. The effects of other interactions are weaker, indicating that partisan context is a relatively powerful mental-health factor in today's political climate.\*\*

We also compare the size of the contextual effects of partisanship to the effect of poverty rates in a neighborhood. A robust literature demonstrates the effects on mental health of

living in increasing poverty (18–20) making this a particularly useful comparison.

Figure 7 displays results from six within-county models, one set of models estimated for Democratic respondents and another set estimated for Republican respondents. Each panel presents two coefficients from a single regression model. Both sets of models predict mental health from the normalized poverty ZIP code poverty rates, normalized ZIP code partisanship, population density, and the normalized share of residents who are white. We normalize the variables so that the coefficients from the models correspond to a one standard deviation increase in the relevant variable, to more easily compare effect size across models. By estimating separate models, we implicitly interact voter partisanship with all four contextual variables, as well as individual respondent covariates. Standard errors are clustered at the ZIP code level.

As in earlier analyses, in Figure 7 we find less response to local context among Democrats, the net effect of ZIP code poverty rates is only statistically significant for one mental health outcome for Democrats, loneliness. In contrast, the magnitude of the estimated effect of local partisan context is always as large as the effect of poverty rates for Republicans, which is statistically significant for two of the three outcomes, suggesting that, for Republicans, contextual partisanship has an effect comparable to the effect of contextual poverty.

### Conclusion

We demonstrate that mental health reports of Republicans and Democrats differ as they move into more congruent partisan neighborhoods, with Republicans reporting better outcomes the more they share political affiliations with their neighbors. <sup>\*</sup>We note that Figure 6 does not show that the Black respondents' mental health reports are sensitive to the share of Black residents in their neighborhoods, however, consistent with past research, in a less restrictive model (Supporting Information Figure S3) we recover this result. This difference may be due to the effect of being in the minority group based on race is driven by other contextual features of neighborhoods correlated with the distribution of race, not just race itself.

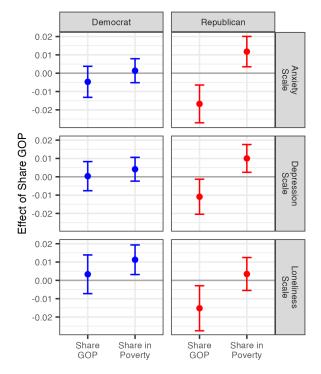


Fig. 7. Effect of Republican Share and Share in Poverty of Neighborhood and ZIP code Poverty for Anxiety, Depression, and Loneliness

Points represent the marginal effect for each subgroup. Bars represent 95% confidence intervals. Share GOP and Share in Poverty are normalized for comparability.

The result is robust to the inclusion of low-level geographic fixed-effects and is most prominent among the most partisan respondents. Local partisanship context also influences how much residents feel they belong in their neighborhood, hinting that its impact on mental health may run through social and cultural channels—not just political ones.

It is possible that people report greater anxiety and depression as they become out-partisans in their neighborhoods because of their personal sensitivities to being out-of-step with those around them. This suggests something different about the way Republicans and Democrats react to their surroundings. But it is equally likely — and observationally equivalent with the pattern we observe — that what varies is the way members of a community treat outsiders. In other words, partisans may react similarly to those around them, but Democrats and Republicans may create neighborhoods with different cultures of acceptance of political outsiders. Consistent with research showing Democrats are more likely than Republicans to exclude the political outgroup in social settings (51), our findings suggest that Democrats may treat political outsiders more poorly than Republicans, particularly those with strong political beliefs, as we observe here. Both possibilities provide important implications for political and social life.

These findings contribute to the growing evidence that partisanship is involved in a range of political and non-political spheres. In many ways, it is not surprising that sharing the attributes of neighbors would affect reported levels of anxiety or depression: this finding is consistent with a broad literature on mental well-being. What, perhaps, is surprising

is that partisanship or its correlates are central enough to some people's identity that political context is one of the things that can affect reports of mental health. 569

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