Commemorating the 125th Anniversary of Labor Day

AUGUST 2019

BUFFALO NIAGARA'S UNION MEMBERS

GOOD NEIGHBORS AND ACTIVE CITIZENS

Russell Weaver
According to a recent report by the Pew Research Center, even in a time of intense political polarization and “growing stress on democracy around the world, Americans generally agree on democratic ideals and values that are important for the United States.” Specifically, Pew found that more than four out of every five Americans, from across the ideological spectrum, agree that behaviors such as voting in elections, respecting others’ opinions, volunteering, and protesting unjust governmental actions, are keys to good citizenship.

At the same time, Gallup polls show that more than four in five Americans currently disapprove of how Congress is doing its job, just two in five Americans approve of the President’s job performance, and the nation is split over how well the Supreme Court is fulfilling its charge.

Together, the implications of the preceding statistics are twofold: (1) Americans mostly agree on how members of a well-functioning democracy ought to participate in that system in order to sustain it and to promote the common good; but (2) for the most part, Americans seem unconvinced that, on balance, the three flagship branches/institutions of the U.S. federal government are advancing the common good and living up to the people’s democratic ideals.

On that backdrop, if “We the People” share certain civic values that we are having trouble seeing at the top tiers of government from where we stand, then where might we look for a sharper image of democracy? And who might we find there? To paraphrase the quote from President John F. Kennedy in the epigraph above, we might look in the mirror, or next door, or at the office, or wherever else one finds members of organized labor; for, the labor movement is people—people with common goals that are goals for all America. “Society is the union of [people]...not the [people] themselves.” –Montesquieu

“The labor movement is people. Our unions have brought millions of men and women together, made them members one of another, and given them common tools for common goals. Their goals are goals for all America...” – Pres. John F. Kennedy
What—and Who—is Organized Labor?

Labor unions are democratic, voluntary, organized groups of workers who come together to “make decisions about conditions affecting their work.” Overall, unions “strive to bring economic justice to the workplace and social justice to [the] nation.” In keeping with the notion that labor’s goals are goals for all America, the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) describes labor’s work as being “anchored in making sure everyone who works for a living has family-supporting wages and benefits and the ability to retire with dignity.” To that end, organized labor advances “legislation to create good jobs by investing tax dollars in schools, roads, bridges, ports and airports, and improving the lives of workers through education, job training and a livable minimum wage”; and it advocates for “strengthening Social Security and private pensions, ensuring fair tax policies, and making high-quality, affordable health care available to all.”

Given these high aims, as well as their collective commitments to democracy, equality, solidarity, and mutual aid, labor unions are precisely the institutions where Americans are likely to find the behaviors and values that they look for in a well-functioning democracy. It is no wonder, then, that unlike declining perceptions of Congress, the Presidency, and the Supreme Court, public opinion of labor unions in the United States has been on the rise. Indeed, recent polls show that labor union approval is at its highest point in 15 years (62% approval) and trending upward.

In honor of the 125th anniversary of Buffalo’s own, President Grover Cleveland, signing the law establishing the federal Labor Day holiday in the U.S., this report creates a current profile of labor union members in the Buffalo-Niagara region. A unique contribution to the labor literature, the report draws on national consumer survey data and employs statistical methods to show that, relative to the rest of the region’s population, labor union members in Western New York appear to be more charitable, more active in volunteering, and more likely to report that they are happy with their lives and standards of living. Supporting decades of existing work, labor union members were also found to have higher incomes compared to non-union workers. Taken together, the evidence suggests that union membership might be a path to a more fulfilling, altruistic, and happy life in the Buffalo-Niagara region.
One reason for warming sentiments toward labor unions is almost certainly that they are delivering results for working people and their local communities, regions, states, and for the nation as a whole. In a 2019 report by the Partnership for the Public Good (PPG) in Buffalo, NY, researchers drew on a combination of quantitative and qualitative data to conclude that "Western New York’s unions have proven that they raise benefits and wages, improve working conditions, invest in their communities, increase civic engagement, and promote sound public policies."\(^1^2\) A 2018 analysis of nearly one million household survey responses from across the U.S., from 1936 through 2016, similarly concluded that unions consistently help to raise pay and reduce inequality.\(^1^3\) Put another way, even though union membership has fallen off from its peak in the 1950s, organized labor continues to “build the high road...to shared prosperity” in communities and regions across the nation.\(^1^4\)

While the labor literature has paid ample attention to labor unions’ leadership,\(^1^5\) core values,\(^1^6\) tactics,\(^1^7\) histories,\(^1^8\) membership numbers,\(^1^9\) and aggregate associations with macro-level variables such as wages, benefits, and income inequality over time,\(^2^0\) there has been arguably less focus on generating comparatively micro-level insights into union members themselves.\(^2^1\) For example, to what extent do union members practice or uphold labor’s core democratic ideals and civic values in their personal lives? Do union members feel more empowered than non-unionized workers? Are there links between union membership and life satisfaction or happiness? Answering these types of questions can be useful for bringing the labor movement of a particular region down to a human scale: just who are the union members next door, and what kind of neighbors are they?

The remainder of this report explores these questions for the Buffalo-Niagara region of Western New York (WNY)—home of the “City of Good Neighbors” (Buffalo)—by relying on localized data from the 2017 Experian Marketing Services Simmons® National Consumer Study (NCS).\(^2^2\) By and large, empirical studies of union membership in the U.S. have been limited to the metropolitan region scale, for which membership numbers can be estimated using weighted responses from the U.S. Census Bureau’s Current Population Survey (CPS).\(^2^3\) In contrast, the SimmonsLOCAL® survey, which, among other questions, asks respondents if they are members of labor unions, employs a combination of weighting and geobe-
havioral modeling to provide data down to what is essentially a “neighborhood” scale. These finer-resolution data allow not only for a mapping of union members within a region; but, combined with other variables and drawing on methods of statistical analysis, they enable researchers to generate more person-centered profiles of union members wherever they live. In that sense, this report expands on and contributes to recent work that is attempting to better understand labor unions by repurposing commercial survey data.

**Why Buffalo-Niagara?**

The Buffalo-Niagara Metropolitan Area is made up of two counties—Erie and Niagara—in Western New York (WNY) state. The two principal cities in the region, Buffalo (Erie County) and Niagara Falls (Niagara County), both have reputations for high union density. In 1986, which is the first year covered by Hirsch and Macpherson’s widely-cited union membership dataset for metropolitan areas, Niagara Falls ranked fourth in union density (35.2% of all employees) out of 246 locations across the nation, while Buffalo ranked ninth (32.7%). Today, following more than six decades of deindustrialization and massive population loss that began in the 1950s, as well as a national trend toward de-unionization during the same timeframe, union density in WNY is considerably lower than it once was. Nevertheless, the combined Buffalo-Niagara region currently ranks 24th in union density (19.9%) out of 260 regions, meaning...
that it is still in the 91st percentile of union membership nationwide. Thus, organized labor continues to be a sizeable and driving force in WNY. Moreover, at the institutional scale, WNY’s unions “have a long and proud history of community service,” and, in individual interviews with researchers, WNY union members have demonstrated a commitment to “self-interest rightly understood” (i.e., welfare for all) by stating that “empathy and compassion” are essential qualities of good citizens. For these reasons and more, Buffalo-Niagara is a highly suitable location for studying the extent to which membership in a union is associated with human-scale phenomena such as heightened senses of civic responsibility, greater levels of self-determination, and higher life satisfaction. In other words, Buffalo-Niagara is a great place to ask whether union members are good neighbors, active citizens, and individually happy. More generally, might union membership be linked to a more fulfilling and altruistic life in WNY?

Survey Questions, Data, and Analysis
SimmonsLOCAL® is derived from Experian’s comprehensive Simmons National Community Survey (NCS), which is administered continuously to American households with new data being released every quarter. The data from the survey are proprietary, and, as such, raw household-level responses are not available to all researchers. However, the data provider SimplyAnalytics offers researchers access to geographically aggregated summaries of the SimmonsLOCAL® data. For this report, SimplyAnalytics was accessed through Cornell University’s Library System, and data from the most recent SimmonsLOCAL® data available through SimplyAnalytics (2017) were downloaded for all census tracts in the Buffalo-Niagara region. To build a preliminary profile of WNY union members and explore tentative answers to the questions posed above, the specific survey items on which data were collected include the following questions (possible responses are given in parentheses):

- Do you belong to a labor union? (Y/N)
- What is your gender? (Male/Female)
- What is your race? (White, Black or African American, Asian, Some Other Race)
- What is your employment status? (Employed, Unemployed, Not in Labor Force)
What is your individual employment income? (Several possible categories)

What is your highest level of education completed? (Several possible categories)

What is your political outlook? (Left-leaning, Middle of the Road, Right-Leaning)

In addition to the above questions, data were collected on the extent to which respondents “agreed” with the following statements:

• I help others even if there is no benefit to me.

• I made charitable contributions in the past 12 months (NB: this item elicited “Yes” or “No” responses as opposed to levels of agreement).

• It is important to respect the customs and beliefs of others.

• I am willing to volunteer my time for a good cause.

• There is little I can do to change my life.

The preceding feelings statements were chosen for their relevance to many of the near-universally supported democratic values and ideals described in the introduction above. Namely, they speak varyingly to: altruism and helping others, cultural competence and embracing diversity, and self-determination. To round out the union member profile, data were obtained from two additional statements:

• I am happy with my life as it is.

• I am happy with my standard of living.

Because raw survey responses are not available to researchers, census tract-level data from the above survey questions and statements were analyzed using a statistical technique designed to allow for individual- and group-level inferences to be made from aggregate data. Details on that method, how it was applied in this report, and the study’s limitations, are provided in the Appendix.

Spatial, Socioeconomic, and Demographic Findings

So, what do the consumer survey responses say about WNY’s union members?

First, union members are everywhere in Buffalo-Niagara—they live in the region’s core cities, outlying rural towns and villages, and everywhere in between. Figure 1 maps the distribution of union members
according to the SimmonsLOCAL® survey, by census tract. For each tract, the map depicts the number of union members divided by the number of employed persons (i.e., respondents who claimed to be employed). For the entire region, SimmonsLOCAL® data suggest that union density was roughly 13%, ranging from a low of 0% in some tracts to highs exceeding 20% in places including Buffalo, Niagara Falls, their inner and outer suburbs, and several rural municipalities in northern Niagara County and southern Erie County.

Notably, the 13% estimate of overall union density is lower than the current estimate of 19.9% for Buffalo-Niagara from Hirsch and Macpherson’s Union Membership and Coverage Database. However, consistent with the Hirsch and Macpherson data, the SimmonsLOCAL® data show that union membership in Buffalo-Niagara is ahead of the national average (11%) and slightly behind the New York State average (13.4%). Thus, while SimmonsLOCAL® might
underestimate WNY’s union membership in quantitative terms (alternatively, it is possible that the U.S. Census CPS data overestimate current density), its qualitative estimate that Buffalo-Niagara is an above-average union region in an even more above-average union state is consistent with other available data. For that reason—in addition to the careful sampling and geobehavioral modeling techniques that Experian uses to conduct the SimmonsLOCAL® survey—\(36\) it appears that the consumer survey dataset can be a valuable, promising source of new information on a region’s union members.

Second, union jobs in Buffalo-Niagara are available to workers of all educational backgrounds. As Figure 2 shows, statistical analyses suggest that union members possess college degrees at the same rate as non-union members in Erie and Niagara Counties. At the other end of the educational attainment spectrum, however, the analyses found that proportionally more union members lack a high school diploma compared to non-union workers. Crucially, there is ample evidence that not possessing a high school degree is a major barrier to obtaining work in the current U.S. economy.\(^37\) In that sense, the observation that relatively more union members fall into this educational category compared to non-unionized workers is arguably a reflection of organized labor’s deep commitment to equality of opportunity. Put another way, it seems that labor unions in WNY help to protect job security and enhance opportunities for less educated and lower skilled workers.\(^38\)

Third, Buffalo-Niagara is somewhat different from national trends in union membership by race and gender. Figure 3 shows that

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**Figure 2**

Estimated education levels of union and non-union workers in Buffalo-Niagara

- Union Member
- Not a Union Member
- All Workers
persons of color in the Buffalo-Niagara workforce might be somewhat underrepresented among self-reported union members, while women were estimated to have higher union membership rates than men. These findings stand in contrast to national figures that show certain persons of color—namely, African Americans—and men have higher union membership rates than white persons and women, respectively. While evidence exists to suggest that women are sometimes overrepresented and persons of color underrepresented in national surveys, and thus the findings from Figure 3 could be artifacts of those tendencies, there is plenty of reason to believe that women are closing, if not inverting, the gender gap in union membership. Specifically, “[w]omen’s share of union members has increased in each of the last three decades,” and, at present, New York State women hold a slight edge over men in the share of workers who are union members or covered by a union contract by gender. At the same time, despite the positive indications of movement toward more equitable union membership by gender, the results from Figure 3 suggest that workers of color in Buffalo-Niagara might be disproportionately non-unionized. This finding points to a need for follow-up primary data collection from WNY’s labor unions (ideally, a census of the region’s union members) to determine the precise nature and magnitude of any unevenness that might exist in union representation by race and ethnicity in the region’s workforce. In

Buffalo-Niagara is somewhat different from national trends in union membership by race and gender.

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**FIGURE 3**

Estimated demographic characteristics of union and non-union workers in Buffalo-Niagara

<table>
<thead>
<tr>
<th>% Person of Color</th>
<th>Union Member</th>
<th>Not a Union Member</th>
<th>All Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.6%</td>
<td>95.4%</td>
<td>9.4%</td>
<td></td>
</tr>
<tr>
<td>10.1%</td>
<td>89.9%</td>
<td>10.1%</td>
<td></td>
</tr>
<tr>
<td>9.4%</td>
<td>90.6%</td>
<td>9.4%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% White</th>
<th>Union Member</th>
<th>Not a Union Member</th>
<th>All Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>95.4%</td>
<td>89.9%</td>
<td>10.1%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% Female</th>
<th>Union Member</th>
<th>Not a Union Member</th>
<th>All Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>53.9%</td>
<td>44.7%</td>
<td>5.3%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% Male</th>
<th>Union Member</th>
<th>Not a Union Member</th>
<th>All Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.3%</td>
<td>46.1%</td>
<td>4.6%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All Workers</th>
<th>Union Member</th>
<th>Not a Union Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>54.1%</td>
<td>55.3%</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

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Buffalo Co-Lab
the meantime, notwithstanding the uncertainty that accompanies statistical analyses, it will be worthwhile for organized labor in WNY to continue, if not meaningfully increase, outreach to non-member workers of color throughout Buffalo-Niagara.

Fourth, union members in Erie and Niagara Counties come from all sides of the political spectrum. While findings suggest union members are likely to lean considerably more to the left than non-union members and the workforce as a whole—both of which appear to be more moderate—union members and non-union workers report “right-leaning” ideologies with roughly equal frequencies (Figure 4). Thus, in addition to inhabiting all corners of Buffalo-Niagara’s geographic landscape (Fig. 1), union members are also spread out in the region’s political landscape. This finding supports Levi’s observation that “workers as a group are [n]either homogeneous [n]or [strictly] progressive. The distinctions among members of different unions are sometimes stark.”42

Fifth, consistent with decades’ worth of evidence,43 Buffalo-Niagara union members appear to earn more than non-union workers. Importantly, the census tract-level SimmonsLOCAL® data available through SimplyAnalytics do not report exact income figures for individuals. Rather, respondents are grouped into categories based on their self-reported annual income. Figure 5 graphs the distributions of union and non-union incomes in Buffalo-Niagara across five income categories, shown below in ascending order. Observe that the lowest two income categories—(1) under $25,000 and (2) $25,000-$50,000—have disproportionately many non-union members relative to union members. Specifically, whereas more
than 72% of non-union workers in Buffalo-Niagara appear to earn less than $50,000 per year, only around half (53.3%) of union members fall into these earnings categories. By contrast, nearly 27% of union members fall into the middle earnings category with annual income between $50,000 and $74,999 annually; for comparison, fewer than 18% of non-union workers fall into the same income class. At the upper end of the distribution, union members earn $75,000 or more per year at double the rate (20%) of non-union members (10%). Taken together, the results from analyzing the consumer survey data strongly support the notion that unions deliver higher wages for their members.

Findings on Democratic Values and Happiness

The results from the prior section give a sense for who WNY union members are in demographic terms and how that profile compares to national averages. The findings presented in this section get more to the heart and contribution of the report: is there any evidence that union members in Buffalo-Niagara are good neighbors, active citizens, and individually happy?

Figure 6 graphs differences in the responses of union members and non-members on four survey items for which respondents indicated their level of agreement with statements about democratic and civic values. The results from analyzing those four survey items suggest that union members differ markedly from non-union members in two of the four areas under investigation. More explicitly, the findings from the four items revealed that:

...nearly 27% of union members fall into the middle earnings category...
Union members and non-union members in Buffalo-Niagara agree that they are likely to help others...

...even if there is no material benefit for doing so, at about the same rates. While the estimated percentage of union members who agree with this statement (72.9%) appears to be slightly lower than the comparable figure for non-union members (73.7%), there is no statistically significant difference in these patterns of responses.\textsuperscript{44} In other words, more than seven out of every ten persons in Buffalo-Niagara, regardless of union affiliation, claim that they would be likely to help others for nothing in return.

Union members in WNY appear to make charitable contributions at significantly higher rates than non-union members.

More precisely, the analyses found that nearly all union members from the Buffalo-Niagara region (98%) were estimated to have made charitable contributions in the year prior to their participation in the survey, compared to just 61.3% of non-union members and 61.5% of the overall adult population. These differences were highly statistically significant. Even though “Yea Saying” is a well-known

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure6.png}
\caption{Selected values and attitudes of union and non-union workers in Buffalo-Niagara}
\end{figure}
phenomenon in survey research (i.e., respondents tend to be agreeable and respond positively to many questions), the magnitude of the differences in union and non-union member responses in Figure 6 is quite telling. At minimum, the results show that union members at least think more positively about engaging in charitable behavior than non-members. This outcome is in lock-step with the Partnership for the Public Good’s conclusion, based on interviews with local union leaders, that members of WNY’s labor community work together, in various ways (e.g., toy drives, fundraising, volunteer service), to “build civic cohesion [and cultivate] a sense that we are all in it together.” It is also consistent with broader observations that “[a]lmost all unions…ask members to contribute personal time and money…for charitable purposes.”

Union members and non-members in Buffalo-Niagara are equally likely to agree that it is important to respect the customs and beliefs of others.

While the estimated percentage of union members who agree with this notion (63.6%) is marginally higher than the corresponding estimate for non-union members (61.3%), there is no statistically significant difference in these two percentages. The upshot is that just over six of every ten persons in Buffalo-Niagara, regardless of union affiliation, agree that the customs and beliefs of other persons deserve respect. In light of both (1) labor’s leadership on issues of equality, and (2) national data that show most Americans think respecting others’ beliefs and opinions is crucial for a democracy, a point of departure from this finding might be that there is ample opportunity for labor to take the lead on raising cultural competence throughout WNY.

Union members are significantly more likely to say they are willing to volunteer for a good cause than non-union members.

In particular, the findings suggest that 83% of union members would volunteer for a good cause, compared to just 62% of non-union members. The difference is highly statistically significant and, similar to the findings on charitable contributions, speaks to a greater propensity for activism and volunteering among union members relative to the general public.
Next, given the complexity and size of society, it is easy to understand why people, and groups of people, become apathetic towards certain aspects of democratic politics. Take voting behavior, where there is widespread belief that one’s vote does not matter to the outcome of an election (let alone to a broader societal outcome), especially among persons of color. Empirical evidence tends to support that sentiment: according to an influential study by leading political scientists and statisticians, on average, an American voter appears to have about a 1 in 60 million chance of casting a deciding ballot in a presidential election. To the extent that many U.S. citizens see voting as their primary, if not exclusive, form of political participation and the source of their democratic voice, this seeming inability to individually affect electoral change can bring about broader feelings of disempowerment. The result can be passive citizens who feel they have little agency in changing their life outcomes.

According to economist Robert Reich, how “utterly powerless most people feel” today stems from “a lack of meaningful choice” caused by intense upscaling in key institutions over time. Simply put, companies, banks, hospitals, digital platforms (e.g., Amazon and Google), and even elections have become so large that they need not “be responsive to us because we can’t penalize them.” There is a lack of accountability, insofar as “we have no countervailing voice forcing [those large institutions] to listen.” Making a similar point, Harvard political scientist Margaret Levi has said that many western democracies have suffered from a decline in the number and power of “intermediary associations” that “mobilize voice, votes, and money...provide civic socialization and education...[and balance] corporate power and influence.”

To both Levi and Reich, labor unions have a history of being that longed-for “countervailing voice” or “intermediary association.” Indeed, organized labor invests heavily into transforming workers’ mental models so that they “come to sense their ownership in the organization” and gain the confidence to successfully resolve problems without relying on external sources.

Along those lines, although de-unionization might have softened labor’s “countervailing voice” from time to time over the past half century or so, Figure 7 shows that, at least in Buffalo-Niagara, union members nearly all still feel empowered. Specifically, less...
than 1% of self-reported union members were estimated to agree with the statement that there is little they can do to change their lives. In contrast, over 20% of non-union members, and more than 19% of the general adult population in WNY, expressed feelings of powerlessness. The difference between union members and non-union members is highly statistically significant, and it serves as a powerful reminder of just how successfully unions can cultivate feelings of agency and empowerment in their individual members.58

Finally, at a time when America appears to be “addicted to anger”59 and descending into a “politics of rage,”60 it is important to put what is positive in the spotlight as often as possible. To that end, the SimmonsLOCAL® survey data show that most adults in the Buffalo-Niagara region (62.4%) agree that they are happy with their lives at the present moment. Disaggregating those responses by union membership, however, Figure 8 shows that more than 81% of WNY union members are estimated to be happy with their lives, compared to just under 61% of non-union members. Stated more plainly, the analyses suggest that Buffalo-Niagara union members are significantly happier with their lives than non-union members.

What is even more striking than the finding concerning overall happiness is that, when asked about standard of living more specifically, more than 73% of union members reported that they are satisfied with their current standard of living compared to just 47.7% of non-members and 49.7% of all adults in Erie and Niagara Counties. The difference here is also statistically significant, and it adds to the evidence that organized labor works to improve not just conditions in the workplace, but also overall standard of living and quality of life for its members.

**FIGURE 8**

Happiness and satisfaction with standard of living for union and non-union workers in Buffalo-Niagara

- I am happy with my standard of living
  - All respondents, total: 49.7%
  - Respondent does not belong to a union: 47.7%
  - Respondent belongs to a union: 73.1%

- I am happy with my life as it is
  - All respondents, total: 62.4%
  - Respondent does not belong to a union: 60.9%
  - Respondent belongs to a union: 81.2%
Concluding Remarks

By analyzing data from a national consumer survey—an unconventional source of information on union members—this report produced novel evidence that implicates a crucial link between life in a labor union, life at home, and individual perceptions of life quality in the Buffalo-Niagara region. More precisely, while none of the findings reported in this report offer causal evidence that union membership necessarily leads to happiness, there are unambiguous associations between union membership, civic values of altruism and volunteerism, empowerment, life satisfaction, and happiness with standard of living in Western New York. Concerning the latter result, the wide gap between union members and non-members in terms of satisfaction with standard of living arguably offers even more circumstantial evidence that unions help provide members with important standard of living guarantees including higher wages, job security, and a sense of solidarity—“a sense that we are all in it together.”61

Speaking more generally, it is well-established in the literature that labor unions have historically promoted democratic values among their constituencies and empowered members to become active agents of change.62 There is also ample evidence that volunteerism, altruism, and various other-regarding behaviors and emotions are positively associated with personal happiness and greater individual well-being.63 In fact, researchers have even found evidence that “…volunteering (i.e. active participation in voluntary organiza-tions) is positively and significantly associated with higher life satisfaction, with an effect that is quantita-tively similar to that of moving up by one decile in the income scale.”64 In other words, volunteering and collaborating with others in pursuit of common/collective goals might make people as happy as moving up a rung on the income ladder.

The analyses performed in this report suggest there appear to be strong ties between practicing certain democratic and civic values in one’s life on the one hand, and one’s life satisfaction on the other. These ties are especially apparent among labor union members, whose participation in democratic, voluntary, organized groups of workers seems to give them greater predispositions (compared to non-members) to engage in altruistic behaviors (Fig. 6) and feel empowered (Fig. 7). To answer a pressing question posed earlier,
union membership and participation just might be a path to a more fulfilling, altruistic, and happy life in the Buffalo-Niagara region.

**Epilogue: Labor Temperature Rising in Western New York**

The introduction to this report set the stage by summarizing national survey data that document low and eroding public confidence in foundational institutions of democracy in the United States. It then made the case that organized labor might be a model institution where disaffected Americans can look to see the democratic ideals and civic values that they care deeply about still flourishing. National polling data offered some scaffolding to hold that claim, at least temporarily; for, recall that, even in the current sea of public disapproval for Congress, the Presidency, and even the Supreme Court, national public sentiment toward labor unions is currently enjoying a steady, 15-year high.65

With evidence now in hand that Buffalo-Niagara union members appear to hold and/or practice several civic values at higher rates than the general public, is organized labor in WNY enjoying a similar trend toward higher public sentiment? To examine this possibility, data from the American National Election Studies (ANES) cumulative time series data file might help.66 One question asked in the ANES, which occurs in even years, relates to a respondent’s perception of labor unions. Specifically, respondents provide ANES with their subjective “temperature” ratings of labor unions, where 0 is cold or unfavorable and 100 is warm or favorable. Unlike the Simmons-LOCAL® survey, data are not provided at fine geographic resolutions. Rather, exploring geographic variability in labor union temperature over time is most practical at the Congressional District resolution. Unfortunately, (1) Congressional District boundaries change every ten years, and (2) the Congressional Districts that cover Buffalo-Niagara also cover many areas outside of Erie and Niagara Counties. For that reason, there is no surefire way of using the ANES data to show public sentiment toward labor unions in the exact spatial footprint that has been under the microscope in this report. Consequently, as a second best strategy, it is possible to explore public sentiment toward labor unions in New York Congressional Districts 26 and 27, both of which have served western upstate New York for decades.67 Clearly, using these two districts to study labor union temperature in Western New York (WNY) is imprecise and imperfect;
but it offers a window into likely union sentiment in Buffalo-Niagara. On that note, Figure A1 graphs labor union temperature from the ANES time series dataset from 1966 through 2016. This 50-year window was chosen for the consistency in data reporting and data availability over the given timeframe.

Consistent with Levi’s observation that unions “were at their height in the early 1970s,” union favorability in NY-26 and NY-27 peaked in 1972 at more than 70% approval. Since that time, labor union temperature has hovered at—and, mostly, below—the series-wide mean of 55% approval. However, since reaching a local minimum of about 40% approval in 1998, labor union temperature in WNY has been rising. Approval has steadily climbed from that roughly 40% low in 1998 to 62% in 2016, which is consistent with current national polling numbers. In sum, union membership in Buffalo-Niagara appears to be linked to higher pre-dispositions to hold and practice certain democratic and civic values (and greater happiness); and, at the same time, union approval ratings in upstate WNY are approaching levels that would match their 50-year high points. Labor builds democracy that the American people value.

Technical Appendix

Public Sentiment Toward Labor Unions in Western New York Over Time (Source: ANES Time Series)

FIGURE A1
The SimmonsLOCAL® data were collected via SimplyAnalytics for all 297 census tracts in Erie and Niagara Counties pictured in Figure 1. While the Simmons National Consumer Survey (NCS) is distributed to households, and data are accordingly collected at the household level, SimplyAnalytics only provides data that have been aggregated (for, among other reasons, reasons of privacy and propriety). The manner in which the household data are aggregated and made available at the census tract level creates a complication for the type of research questions being asked in this report—namely, unlike popular opinion polling agencies, SimplyAnalytics does not offer “cross-tabs” of the raw survey data that would allow for summarizing the desired types of union/non-union breakdowns (see the main body of the report) directly from the dataset. Rather, each attribute of interest (e.g., union membership, income level, etc.) is provided as a single stream of data. For that reason, the only means for creating the types of breakdowns presented in this report are statistical methods that allow individual- and group-level inferences to be made from aggregate data. One of the most common and accepted methods in this toolbox is Gary King’s method of ecological inference (King’s EI). King’s EI is widely used in studies of racial and ethnic group voting behavior, and it is favored by federal judges in voting cases that deal with such matters. Accordingly, it is described as an “established method” for research that leverages variation in aggregate data to estimate unknown quantities of interest.

Following King, a basic EI model requires three observable tract-level values: (1) the total number of respondents under investigation, \( N_i \); (2) the fraction of \( N_i \) considered to be a dependent variable, \( T_i \); and (3) the fraction of \( N_i \) with some explanatory characteristic of interest, \( X_i \); where \( i \) is an index of census tracts. Using these quantities, the dependent variable of interest can be modeled as a function of (i) \( X_i \) and (ii) all other persons \((1-X_i)\):

\[
T_i = \beta_i^{\text{cat1}} \cdot X_i + \beta_i^{\text{cat2}} \cdot (1-X_i)
\]

To perform the analyses for this report, there were two different sets of respondents under investigation \((N_i)\) and several different dependent variables \((T_i)\), depending on the survey question of interest. For the demographic and socioeconomic questions (e.g., gender, race, education, and income), the set of respondents under investigation was all employed respondents (“workers”). That value is directly obtainable from the SimplyAnalytics data. Also available is the fraction of all adult respondents (but, crucially, not all workers) who identified as union members. In that sense, to create a profile of union workers, it was first necessary to study the population of all [adult] respondents in order to segment the population of workers (of which union members are a subset) into various categories of interest. The model used to accomplish that objective for worker gender, and the relevant ecological inference problem, is summarized graphically in Table A1 for illustrative purposes.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Adult Respondents</th>
<th>Employed/Worker (W)</th>
<th>Not Employed (NW)</th>
<th>All Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female (F)</td>
<td>( \beta_i^F )</td>
<td>( 1 - \beta_i^F )</td>
<td>( X_i )</td>
<td></td>
</tr>
<tr>
<td>Male (M)</td>
<td>( \beta_i^M )</td>
<td>( 1 - \beta_i^M )</td>
<td>( 1 - X_i )</td>
<td></td>
</tr>
</tbody>
</table>

\( T_i \) \hspace{1cm} \( N_i \)  

| TABLE A1 |
In the above case, solving the ecological inference problem requires three observable values for all census tracts in the study area: (1) the total number of survey respondents, \( N_i \); (2) the fraction of \( N_i \) that claimed to be employed, \( T_i \); and (3) the fraction of \( N_i \) that is female, \( X_i \), where \( i \) is an index of all census tracts in the Buffalo-Niagara region. Using these quantities, the workforce (\( T_i \)) can be modeled as a function of (i) respondents who are female (\( \beta_i^F \)) and (ii) respondents who are male (\( \beta_i^M \)).

Next, following instructive literature, the estimates from the model depicted in Table A1 are used to generate “step two” estimates of union member (and non-union member) demographic and socioeconomic characteristics in much the same way as the “step one” estimates were generated. Specifically, in step two, the fraction of all workers (\( N_i \)) who are union members (\( T_i \)) is modeled as a function of selected demographic and socioeconomic characteristics (\( X_i \)). For each model (including at step 1), King’s EI leverages the marginal values (\( T, X, \) and \( N \)) as inputs to compute deterministic bounds for the unknown, interior quantities (see Table A1 for an illustration). It then employs a simultaneous maximum likelihood approach to estimate the locations of the parameters within these bounds. Point estimates for each quantity of interest, as well as accompanying standard errors, can then be derived from the likelihood function for each census tract. Subsequently, tract-level estimates can be re-aggregated to create a compositional profile of union workers in Buffalo-Niagara as a whole. Note, though, that while it is beyond the scope of the current report, the tract-level data need not be re-aggregated to the regional footprint. As such, it is possible to generate finer-resolution profiles of union members throughout the region.

Whereas the above algorithm was needed for all of the socioeconomic and demographic questions (as well as ideology), analyzing the democratic/civic value, empowerment, and happiness questions did not require the two-step process. Rather, these questions apply to everyone—it is not necessary to study only workers. Rather, it is possible to study union members versus the rest of the [adult] population. In that sense, \( N \) is the total number of adult respondents, \( T \) is the fraction of \( N \) who claim to be union members, and \( X \) comes from the specific value, happiness, or other question under investigation.

For multi-category EI problems that do not take the 2x2 form illustrated in Table A1, a higher dimensional specification of the model commonly referred to as “RxC EI” can be used to estimate the quantities of interest. All analyses—whether 2x2 or higher dimensional—were carried out in the R statistical package using the “ei” and “eiPack” packages.

As a final matter, consistent with the exploratory and profile-building aims of this report, King’s EI models were designed and estimated in the “one dependent variable-one independent variable” form described above, illustrated in Table A1, and most commonly found in the literature. An important next step and opportunity for future research is to design and estimate EI models that incorporate covariates. Especially in light of the highly skewed racial composition of union members in Buffalo-Niagara, whereby the vast majority of union members were estimated to be white (see above), additional research is needed to investigate the role that race plays in reported volunteering behavior, charitable contributions, and happiness, for union members and non-members alike.
Endnotes

2 Ibid.
4 https://news.gallup.com/interactives/185273/presidential-job-approval-center.aspx?g_source=link_news9&g_campaign=item_245606&g_medium=copy
5 https://news.gallup.com/poll/4732/supreme-court.aspx
6 https://www.unionplus.org/page/what-union
7 Ibid.
8 https://afilcio.org/about-us (emphasis added)
9 Ibid. (emphasis added)
14 PPG
15 Ahlquist and Levi.
21 However, see Ahlquist and Levi for a multi-methods investigation into four specific unions, their members, and their members’ motivations.
22 https://business.library.emory.edu/documents/databases/simplymap-3.0-simmons-local-methodology.pdf; The SimmonsLOCAL® survey was accessed through the commercial data provider SimplyAnalytics, courtesy of Cornell University.
23 Hirsch and Macpherson.
24 Specifically, data are provided down to the census block group level. Even though census block groups and the slightly larger census tracts are often used to approximate “neighborhood” boundaries in social science research, these units of analyses should not be construed with neighborhoods, which are comparatively personal and socially constructed phenomena. For more information on this issue, see: Weaver, Russell. “Contextual influences on political behavior in cities: Toward urban electoral geography.” Geography Compass 8, no. 12 (2014): 874-891.
25 Farber et al.
26 http://unionstats.gsu.edu/Met%20866_.htm
27 Weaver et al.
28 PPG.
29 PPG, p. 29.
31 PPG, p. 22.
32 Tracts are preferred over block groups due to the frequency of zero observations in the latter. The statistical methods employed to profile union members in this report are especially useful when all or most observations of key variables (e.g., union members or total employees) are nonzero.
33 Responses in parentheses have been aggregated to the categories used to facilitate statistical analyses.
34 All responses denoting agreement—from "agree a little" through "agree a lot"—were used.
35 For comparison, Hirsch and Macpherson estimate that Buffalo-Niagara’s current union density is 19.9%, compared to 22.3% for New York State.
40 Chang, Linchiat, and Jon A. Krosnick. "National surveys via RDD telephone interviewing versus the Internet: Comparing


42 Levi, p. 2.

43 PPG; Hirsch and Macpherson; Rosenfeld et al.; Card; Ahlquist; Farber et al.

44 The error bars depicted in all of the graphs in these sections show 80% confidence intervals for the given point estimates. The absence of overlap in 80% confidence intervals offers an eyeball test for significant differences at around a 95% level of confidence. See: Weaver, Russell. “A cross-level exploratory analysis of “neighborhood effects” on urban behavior: An evolutionary perspective.” Social Sciences 4, no. 4 (2015): 1046-1066.

45 https://measuringu.com/survey-biases/

46 PPG, p. 22.

47 Ahlquist and Levi, p. 11.

48 Ibid.

49 https://www.workingamerica.org/DMVM

50 Gelman, Andrew, Nate Silver, and Aaron Edlin. “What is the probability your vote will make a difference?” Economic Inquiry 50, no. 2 (2012): 321-326.


54 https://robertreich.org/post/117461327725

55 Levi.


57 https://robertreich.org/post/117461327725

58 See Ahlquist and Levi.


61 PPG, p. 22.

62 Bacharach et al.; Ahlquist and Levi.


65 https://news.gallup.com/poll/241679/labor-union-approval-steady-year-high.aspx

66 https://electionstudies.org/data-center/


68 Levi, p. 3.


74 https://cran.r-project.org/web/packages/ei/index.html; https://cran.r-project.org/web/packages/eiPack/index.html

75 See, for example: Orey et al.; Collett; Roch and Rushton; Tolbert and Hero.
WHERE THE HIGH ROAD WORKS