



LEHIGH VALLEY QUALITY OF LIFE SURVEY

Report on Resident Perceptions of Environmental Quality

MARCH 2023

The following report examines public opinion about environmental quality in the Lehigh Valley. The report provides an overview of key findings on this issue from the Lehigh Valley Quality of Life Survey. The survey was conducted in late 2022 by the Muhlenberg College Institute of Public Opinion (MCIPO) in partnership with Lehigh Valley News.com, The Lehigh Valley Economic Development Corporation (LVEDC), and The Lehigh Valley Partnership. This report is the third in a series released during the early months of 2023. The primary authors of the report are Cydney Wilson, Anthony Merchlinsky, Cathy Barrish and Chris Borick of the MCIPO.

KEY FINDINGS

1. Lehigh Valley residents express significant levels of concern regarding the loss of open space in the region with three out of four Lehigh and Northampton county residents either “very” or “somewhat” concerned with this matter.

2. About a third of Lehigh Valley residents expressed concerns about the quality of air and drinking water quality in the region.
3. Area of residence significantly affects concern about the environment in the Lehigh Valley. Residents who live in urban areas are more likely to be concerned with air and water quality, while those who live in suburban/rural areas are more likely to be concerned about the loss of open space.
4. Racial identity impacts levels of concern with environmental matters in the region. White residents expressed more concern about the loss of open space than people of color, while people of color showed more concern about air quality and water quality than their white counterparts..
5. Opinions of the quality of local governments in the Lehigh Valley are related to concerns about the environment. Those who have negative views of the local government in the Lehigh Valley are more likely to have increased concerns about air quality and the loss of open space.
6. Residents who have negative opinions on the overall quality of life in the Lehigh Valley are more likely to have elevated concerns about air quality, water quality, and the loss of open space.
7. Individuals in lower income brackets are more likely to be concerned with the safety of their drinking water and the quality of air in the Lehigh Valley. In contrast, those in higher income brackets are more likely to be concerned with the loss of open space.
8. Lehigh Valley residents who believe life in this section of Pennsylvania is getting worse are more likely to express concerns with air quality, water quality, and the loss of open space.
9. The more concerned individuals are with the amount of local taxes they pay, the higher their concern with the loss of open space in Lehigh and Northampton counties
10. Gender plays a role in perceptions of environmental factors as well. Those who identified as female were more likely to have concerns about air quality, water quality, and the loss of open space than those identifying as male..

Loss of Open Space

Open spaces such as forests and farms have a wide variety of uses, such as agricultural production, recreational use and preservation of natural beauty. These outcomes can lead to increased happiness and promote tourism, protection of water sources and wildlife habitats, job opportunities, and lower taxes.

The American Farmland Trust¹ explains that the US is losing 40 acres of farm and ranch land every hour to new development. Additionally since 1982, 24 million acres of land previously used for agricultural purposes has been developed for other purposes.. According to the United States Department of Agriculture², the area of urban and developed land is expected to increase from 39 to 69 million acres between 2010 and 2060.

According to the Lehigh Valley Planning Commission, the County Board in Lehigh has protected 376 Lehigh County farms covering 26,606 acres as of March 2022. Lehigh County is 4th in Pennsylvania in terms of the number of farms preserved and 5th in the Commonwealth for the number of acres preserved. As of October 2021, Northampton County has preserved 222 farms and 17,705 acres of land.³ The county has dedicated nearly \$24 million to preserving farmland.

Despite significant levels of land preservation in the Lehigh Valley, there is still a high percentage of local residents who are concerned about the loss of open spaces. As can be observed in Table One, residents of The Lehigh Valley have expressed a significant degree of concern with the loss of open space, with over 3 out of four residents expressing that they are “somewhat” or “very concerned” with this matter.

TABLE ONE

**Levels of Concern with the Loss of Open Spaces such as Forests and Farms
in the Lehigh Valley**

Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
47%	29%	13%	11%

¹<https://www.lehighcounty.org/Departments/Agricultural-Land-Preservation/Why-Preserve-Farmland->

² <https://www.fs.usda.gov/science-technology/loss-of-open-space>

³ <https://www.northamptoncounty.org/CTYADMN/FARMPRES/Pages/PrsvFarm.aspx>

The survey findings indicate that, generally speaking, residents of the Lehigh Valley are concerned about the loss of open spaces such as forests and farms. Approximately three quarters of those residing in the region are “very” or “somewhat” concerned with the loss of these land resources. Given the importance of open space to quality of life, it’s not surprising that overall perceptions of life in the Lehigh Valley are tightly related to levels of concern with the loss of open space. This relationship can be seen in Table Two below.

TABLE TWO

Level of Concern about Loss of Open Space by Opinions on Overall Quality of Life (QOL) in the Lehigh Valley

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Excellent QOL	34%	39%	13%	14%
Good QOL	48%	28%	14%	9%
Not so Good QOL	65%	20%	6%	10%
Poor QOL	71%	0%	10%	19%

Those with the the most positive view of the quality of life in the Lehigh Valley are the least likely to be very concerned with the loss of open space (34%). As the view of quality of life becomes more negative, concern over the loss of open spaces increases. About two out of three residents who view the quality of life in the area as either “not so good” or “poor” are “very” concerned with the loss of open space in the Lehigh Valley.

Those who believe that the direction of the quality of life in the Lehigh Valley is getting worse are more likely to be “very” or “somewhat” concerned with the loss of open space. The survey finds 83% of local residents that see life in the Lehigh Valley getting worse are concerned with loss of open space, compared with 68% of people who believe life is getting better maintaining such concerns. About 75% of those who think life is staying the same are “very” or “somewhat” concerned with the loss of open space, which sits squarely in between those who think life is getting better and those who think life is getting worse. Studies show there is a relationship between general happiness and access to open spaces, with the [American Psychological Association](#) demonstrating that there has been a variety of benefits linked with spending time outdoors.

TABLE THREE

Level of Concern about Loss of Open Space by Opinions on the Direction of QualityLife in the Lehigh Valley

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Getting Better	35%	33%	16%	16%
Getting Worse	59%	24%	8%	9%
Staying the Same	44%	31%	15%	10%

As with many aspects of quality of life, income has an impact on perception of open space in the Lehigh Valley. While 68% of those making under 40k are “very” or “somewhat” concerned about the loss of open space. 80% of those making 40-80k, and 77% of those making over 80k are very or somewhat concerned about declining open spaces in the region. This finding may be rooted in the fact that those with lower incomes are often more focused on issues such as housing and food security which they perceive to impact them more directly.

TABLE FOUR

Level of Concern about Loss of Open Space by Income

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Under 40k	42%	26%	17%	15%
40-80k	52%	28%	12%	9%
Over 80k	46%	31%	12%	12%

While significant concern with the loss of open space is found across Lehigh Valley communities, the survey findings identify a modest difference across urban, suburban and rural areas. The results show 73% of urban dwellers are “very” or “somewhat” concerned with the loss of open space compared with 81% of those living in suburban/rural areas. This marginal difference in concern observable in Table Five may reflect that the majority of open space decline in the region is occurring in Lehigh Valley townships that are primarily suburban and rural in nature.

TABLE FIVE

Level of Concern about Loss of Open Space by Area of Residency

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Urban	43%	30%	14%	14%
Suburban/Rural	53%	28%	12%	8%

The survey findings locate fairly substantial racial differences in terms of concerns about loss of open space in the Lehigh Valley. While 81% of white residents are “very” or “somewhat” concerned about the loss of open spaces, 67% of people of color in the region maintain such concerns. According to the Land Trust Alliance, nearly 75% of communities of color in the United States currently do not have access to safe, well-maintained outdoor spaces. This number can be compared with 23% of white communities who lack this access. White communities are more likely to be concerned with something that they might lose, while one must consider that communities of color are often lacking access and therefore might be less likely to be concerned with the loss of access that they don’t currently have.

TABLE SIX

Level of Concern about Loss of Open Space by Race

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
White	53%	28%	11%	8%
POC	35%	32%	16%	18%

There is an interesting relationship between those concerned about the amount of local taxes they pay and concern about the loss of open space. Among those who are “very” concerned about the amount of local taxes they pay, 57% are “very” concerned with the loss of open space in the Lehigh Valley. Comparatively, among those who are “very” unconcerned with the amount of local taxes they pay, only 32% are “very” concerned with the loss of open space.

[The Department for Agricultural and Land Preservation of Lehigh County](#) points out that protecting local farmland keeps property taxes down, thus it may not be surprising that those concerned with taxes would be concerned with the loss of open space. Those who live on family farms pay a higher amount in taxes than the amount of public services they consume, using only .36 in public services for every \$1.00 they pay in taxes. This is compared with commercial development which uses .99 out of every \$1.00 paid, and single family residential developments, who use \$1.30 for every \$1.00 paid. The Northampton County Department for Farmland Preservation determines that, ultimately, saving farmland saves money for taxpayers.

TABLE SEVEN

Level of Concern about Loss of Open Space by Concern over Amount of Local Taxes

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Very Concerned w/Taxes	57%	22%	13%	8%
Somewhat Concerned w/Taxes	39%	39%	11%	11%
Somewhat Unconcerned w/Taxes	49%	27%	13%	12%
Very Unconcerned w/Taxes	32%	30%	18%	19%

Finally, Lehigh Valley residents who maintain negative views about the quality of local government express the greatest concerns with the loss of the region’s open space.. As can be seen in Table Eight, views of local government become more negative as concern with the loss of open space increases. Those with a “not so good” or “poor” view of local government quality have the highest percentage of individuals who are “very” concerned with the loss of open space.

TABLE EIGHT

Level of Concern about Loss of Open Space by Opinions on Local Government

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Excellent Local Gov.	36%	29%	36%	0%
Good Local Gov.	42%	32%	13%	13%
Not so Good Local Gov	53%	28%	13%	6%
Poor Local Gov	63%	16%	5%	17%

Air Quality

Studies of air quality in the Lehigh Valley have identified a number of persistent challenges in this area of the environment. Most notably, ambient air quality in the region has periodically exceeded Clean Air Act standards for particulate matter and ozone. In a 2022 national report, the Lehigh Valley showed slight improvements over previous years, but still received relatively low grades in air quality.⁴ These local air quality issues certainly aren't exclusive to the Lehigh Valley. The 'State of the Air' 2021 report conducted by the American Lung Association finds that, "despite some nationwide progress on cleaning up air pollution, more than 40% of Americans — more than 135 million people — are living in places with unhealthy levels of ozone or particulate pollution."⁵

Given the evidence of periodic episodes of compromised air quality in the region, it's valuable to measure public concern with this matter. Notably, about 2 in 3 Lehigh Valley reported that they were unconcerned with the air quality in the Lehigh Valley, with about a third of respondents expressing that they were either "very" or "somewhat" concerned with the air quality in the area.

⁴<https://www.lehighvalleylive.com/weather/2022/04/lehigh-valley-air-quality-shows-slight-improvement-but-could-be-better-national-report-finds.html>

⁵<https://www.google.com/url?q=https://www.lehighvalleylive.com/weather/2022/04/lehigh-valley-air-quality-shows-slight-improvement-but-could-be-better-national-report-finds.html&sa=D&source=docs&ust=1677615296055977&usg=AOvVaw0-h9cJti6Y942uf2v9PtpD>

TABLE NINE

General Perceptions of Air Quality

Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
12%	24%	27%	37%

There are several demographic factors that usually affect people’s perceptions of environmental issues, but many of these factors did not have a very significant effect on concerns about air quality amongst residents of the Lehigh Valley. The results across demographics such as income, gender, and race had very limited effects on concerns about air quality in the Lehigh Valley. The following three tables show the slight impact that can be seen from income, gender, and race on perceptions of air quality in the Lehigh Valley. Individuals in higher income groups traditionally demonstrate increased concerns with environmental matters. However, high income residents of the Lehigh Valley (i.e.; income over 80K) were least likely to say that they were “very” concerned with air quality in the area.

TABLE TEN

Level of Concern About Air Quality by Income

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Under 40k	16%	22%	27%	34%
40-80k	17%	25%	26%	32%
Over 80k	7%	25%	26%	42%

The survey finds some modest differences in concern with air quality among male and female residents of the Lehigh Valley. As can be observed in Table Eleven, 32% of males are concerned with air quality compared with 40% of females. In addition those identifying as male were more likely (41%) than those identifying as female (33%) to say that they are “very” unconcerned with air quality in the Lehigh Valley.

TABLE ELEVEN

Level of Concern About Air Quality by Gender

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Male	11%	21%	27%	41%
Female	13%	27%	27%	33%

The survey found a small racial divide in concern with air quality in the Lehigh Valley. Residents identifying as white were slightly less likely than people of color to express they are “very” concerned about air quality, and marginally more likely to report that they were “very” unconcerned about Lehigh Valley air conditions.

TABLE TWELVE

Level of Concern About Air Quality by Race

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
White	10%	25%	27%	39%
People of Color	18%	22%	27%	33%

While the previous three tables show only modest differences in perceptions of air quality across economic, racial and gendered divides, other individual level attributes were found to be more impactful. First, where one lives in the Lehigh Valley moderately affects their perception of regional air quality. Those living in urban areas have more concern about air quality in comparison to those living in suburban/rural areas, with 40% of urban residents concerned with air quality while only 30% of those living in suburban/rural areas share the same concerns.

TABLE THIRTEEN

Level of Concern About Air Quality by Area of Residency

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Urban	15%	25%	26%	34%
Suburban/Rural	8%	22%	29%	41%

The next table shows the relationship between opinions on local government and perceptions of air quality. Those who have a more positive opinion of the local government are more likely to be unconcerned with air quality, with 69% of those with positive opinions of the local government unconcerned with air quality, compared to 55% of those who have negative opinions of the local government. In addition, 31% of people with positive opinions of local government express concern with air quality while 46% of those with negative opinions of the local government maintain such concerns.

TABLE FOURTEEN

Level of Concern About Air Quality by Opinions on Local Government

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Positive View Local Gov.	10%	21%	28%	41%
Negative View Local Gov.	15%	31%	25%	30%

The next table shows the relationship between respondents' opinions on overall quality of life in the Lehigh Valley and perceptions of air quality. Those who have a negative opinion on the overall quality of life in the Lehigh Valley are more likely to possess concerns about air quality in the region than residents who have positive perceptions about regional living conditions.

TABLE FIFTEEN

Level of Concern About Air Quality by Perceptions of Overall Quality of Life (QOL) in the Lehigh Valley

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Positive QOL	10%	22%	30%	39%
Negative QOL	26%	37%	13%	25%

Finally, the study finds a significant difference between those who believe life in the Lehigh Valley is getting better and those who believe life is getting worse in terms of concerns about air quality. Almost half (48%) of those who believe life is getting worse in the region express concern with air quality in the area compared to only about a quarter (26%) of those who believe life is getting better.

TABLE SIXTEEN

Level of Concern About Air Quality by Opinions on the Direction of Life

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Getting Better	8%	18%	31%	43%
Getting Worse	17%	31%	23%	28%
Staying The Same	9%	21%	27%	43%

Water Quality

The issue of water quality has risen in national prominence in the past decade with high profile contamination incidents in places such as Flint, Michigan and Newark, New Jersey. Measuring Lehigh Valley residents' perceptions of their water quality is thus particularly merited at this time. The results of the survey indicate that a majority (63%) of Lehigh Valley residents are not concerned with the safety of their drinking water, but over one in three (37%) are either "very" or "somewhat" concerned with water quality in the area.

TABLE SEVENTEEN

General Perceptions of Water Quality

Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
14%	23%	23%	40%

There are three specific factors that seem to play the biggest roles in affecting perceptions on water quality amongst residents of the Lehigh Valley. These factors include what type of area respondents live in, their income, and gender identity. Table Eighteen shows the effects that a respondents’ area of residency has on their perceptions of water quality in the Lehigh Valley. The results indicate that people who live in rural areas are significantly less concerned about the quality of drinking water, while Lehigh Valley individuals residing in urban areas express the highest level of concern with this matter. Only 17% of respondents who live in rural areas have concerns about water quality compared to 41% of those living in urban areas. Those who live in suburban areas of the Lehigh Valley have concern levels between their urban and rural counterparts, as 33% of those respondents maintain concerns about water quality.

TABLE EIGHTEEN

Level of Concern About the Safety of Drinking Water by Area of Residency

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Urban	16%	25%	24%	35%
Suburban	10%	23%	23%	44%
Rural	11%	6%	20%	63%

The next table shows the relationship between income and perceptions of water quality. Lehigh Valley residents who make less than 80k per year are most likely to express concerns about the quality of drinking water with 41% of those in this income bracket either “very” or “somewhat” concerned about water quality. Comparatively, only 32% of those who make over 80k per year expressed concern about drinking water quality, with almost half (47%) of this group “very” unconcerned with this facet of life in the Lehigh Valley.

TABLE NINETEEN

Level of Concern About the Safety of Drinking Water by Income

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Under 40k	21%	20%	28%	31%
40-80k	15%	26%	24%	36%
Over 80k	10%	22%	21%	47%

Table Twenty shows the effect that gender has on perceptions of water quality amongst residents of the Lehigh Valley. This table shows that 32% of respondents who identified as male had concerns about water quality in the area compared to 42% of respondents who identified as female. Male respondents were 12% more likely to be very unconcerned with water quality compared to females

TABLE TWENTY

Level of Concern About the Safety of Drinking Water by Gender

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Male	12%	20%	23%	46%
Female	15%	27%	24%	34%

The survey results indicate that people of color in the Lehigh Valley are more than 3 times more likely to be “very” concerned with the safety of drinking water in their community than a person identifying as white is. Overall, a majority (54%) of people of color in the region reported that they are concerned about drinking water quality, compared to only about 3 in 10 white residents.

TABLE TWENTY-ONE

Level of Concern About the Safety of Drinking Water by Race

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
White	8%	21%	27%	45%
POC	25%	29%	15%	31%

The next table shows the perceptions of drinking water grouped by opinions on the overall quality of life in the Lehigh Valley. As opinions on the overall quality of life in the Lehigh Valley decrease, concern about water quality increases. Only 25% of individuals who believe the quality of life in the Lehigh Valley is “excellent” are concerned about water quality in the area, compared to 54% of those who believe the quality of life is either “not so good” or “poor.”

TABLE TWENTY-TWO

Level of Concern About the Safety of Drinking Water by Quality of Life

	Very Concerned	Somewhat Concerned	Somewhat Unconcerned	Very Unconcerned
Excellent QOL	7%	18%	27%	48%
Good QOL	14%	24%	23%	39%
Not so Good QOL	22%	32%	17%	29%
Poor QOL	27%	27%	23%	23%

Connections Between Environmental Factors

The final section of this report examines the relationships between perceptions of air quality, water quality, and open space amongst respondents in the Lehigh Valley Quality of Life Survey. The results in the following tables provide insight into the degree in which respondents' opinions across each environmental issue are connected. Table Twenty-Three below shows the relationship between perceptions of air quality and water quality. As the concern for one factor

increases, so does the concern for the other, with over half (53%) of Lehigh Valley residents who were “very” concerned with air quality also “very” concerned with drinking water quality.

TABLE TWENTY-THREE

Relationship Between Air Quality (AQ) and Water Quality (WQ)

	Very Concerned WQ	Somewhat Concerned WQ	Somewhat Unconcerned WQ	Very Unconcerned WQ
Very Concerned AQ	53%	22%	13%	12%
Somewhat Concerned AQ	12%	40%	31%	17%
Somewhat Unconcerned AQ	5%	20%	56%	19%
Very Unconcerned AQ	2%	18%	13%	67%

Table Twenty-Four shows the relationship between perceptions of air quality and the loss of open space. Although there is a statistically significant relationship between these opinions, the relationship is not as strong as the one identified between air and water quality. In this instance, the most tightly correlated responses are among individuals who are “very” unconcerned with both air quality and the loss of open space.

TABLE TWENTY-FOUR

Relationship Between Air Quality (AQ) and The Loss of Open Space (OS)

	Very Concerned OS	Somewhat Concerned OS	Somewhat Unconcerned OS	Very Unconcerned OS
Very Concerned AQ	19%	29%	24%	28%
Somewhat Concerned AQ	5%	25%	29%	42%
Somewhat Unconcerned AQ	11%	11%	35%	42%
Very Unconcerned AQ	4%	16%	24%	56%

Finally, Table Twenty-Five presents the relationship between concern with water quality and the loss of open space in the Lehigh Valley. Compared with the previous two relationships, there is relatively little connection between one’s level of concern with the quality of drinking water and concern with declining open spaces within the region.

TABLE TWENTY-FIVE

Relationship Between Water Quality (WQ) and The Loss of Open Space (OS)

	Very Concerned (OS)	Somewhat Concerned (OS)	Somewhat Unconcerned (OS)	Very Unconcerned (OS)
Very Concerned WC	18%	21%	22%	40%
Somewhat Concerned WC	5%	29%	27%	38%
Somewhat Unconcerned WC	14%	21%	27%	39%
Very Unconcerned WC	17%	22%	13%	48%

CONCLUSION

This breakout report builds on findings from the 2022 Lehigh Valley Quality of Life Study. The aim of this report was to explore public perceptions of the quality of the environment in the Lehigh Valley. A large majority of regional residents expressed concern with the loss of open spaces in the Lehigh Valley, with almost half of adult residents very concerned about this matter. While only about a third of Lehigh Valley residents expressed concern about the region’s air and drinking water quality, concern levels were higher among those living in the Valley’s urban areas, and among people of color living in Lehigh and Northampton counties.

METHODS

This report provides results of a telephone survey of 631 adult residents of Lehigh and Northampton counties in the Commonwealth of Pennsylvania. Interviews were conducted between September 26 and October 28, 2022. Respondents were interviewed in English on both landlines (111) and cell phones (520). With a randomly selected sample of respondents the

margin of error for the surveys is +/- 5% at a 95% level of confidence. Margins of error for questions with smaller sample size will be larger. In addition to sampling error, one should consider that question wording and other fielding issues can introduce error or bias into survey results. The data has been weighted to gender, age, race, and educational attainment to 2022 population parameters for Lehigh and Northampton counties provided by the United States Census Bureau. The calculation of sampling error takes into account design effects due to the weighting of the sample to the population parameters identified above. In order to reach a representative sample of Lehigh Valley adult residents, landlines and cell phones were called up to 3 times. Interviews were conducted by Communication Concepts of Easton Pennsylvania. Due to rounding, the totals provided in the frequency report may not total 100 percent. Data analysis and weighting were conducted through the use of the SPSS statistical software package Version 29.0. The survey instrument (presented in its entirety below) was designed by Dr. Christopher P. Borick of the MCIPO in conjunction with the staff of Lehigh Valley News.com. The survey was funded by Lehigh Valley News, the Lehigh Valley Economic Development Corporation (LVEDC), The Lehigh Valley Partnership and the MCIPO. For more detailed information on the methods employed please contact the MCIPO at 484-664-3444 or email Dr. Borick at cborick@muhlenberg.edu.