# Environmental Justice Conditions of Communities Adjacent to a Proposed Facility in Southwest Chicago

Summary report prepared by Michael D. Cailas, Michael Siciliano, Apostolis Sambanis, Fabio Miranda, and Sybil Derrible 2/8/22

**Summary:** The environmental justice status of these densely populated areas is already poor: the residents are underserved, low-income people of color, predominantly Latinx, surrounded by industrial corridors, brownfields, asphalt plants, intermodal railyards and storage and industrial facilities that are known emitters of hazardous materials. The effect of the proposed facility on further deterioration of the environmental justice status, especially for children, can only be assessed using a cumulative impact approach.

## 1. Introduction

The site for the scrap metal recycling facility proposed for SIMS Metal is at the edge of the industrial corridor near the residential sections of Chicago's Pilsen and Little Village neighborhoods. These two areas, and even more so Bridgeport, McKinley Park, and Brighton Park to the south, have a uniquely poor environmental justice (EJ) profile: a dense, predominantly Latinx residential sector, which is surrounded by industrial corridors and two major highways (See Figure 1). In addition, this part of the city has most of Chicago's railyards (six of the eight within the city limits), numerous storage and industrial facilities, brownfields, and many asphalt plants, all of which are a major nuisance for these communities.<sup>1,2,3</sup>

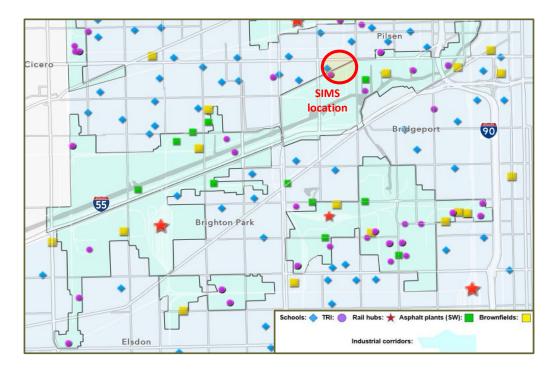


Figure 1. Area surrounding the SIMS Metal Midwest facility at 2500 S. Paulina St (for details, see Appendix)

This issue has been covered in the two UIC studies made public as dashboards.<sup>1,2</sup> A key finding of these is that Chicago's toxic release inventory (TRI) reporting facilities are concentrated near neighborhood public schools in communities with a predominantly Latinx student population.<sup>1,2</sup> The proximity of industrial facilities (at a TRI level), rail yards, and brownfields to public schools is a major issue that places these communities at an elevated EJ status since, to paraphrase the EPA's fair treatment EJ definition:

"no group of [children], should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies." (Source: US EPA<sup>4</sup>)

In communities on the Southwest Side, 79.1% of the children in public schools come from below-poverty level households, mainly Latinx families, and already bear a disproportionate share of environmental consequences (e.g., proximity to TRI facilities and rail yards) compared to their peers across the city.<sup>1,2,3</sup>

## 2. Area demographics and EJ indicators

Demographic information from EPA's EJSCREEN indicates that at a 1-mile radius around the proposed facility this area is a low-income neighborhood, with 82% of its residents being people of color (See Appendix). The environmental justice indicators from the same source reveal an area at the highest level of EJ charts, with indices reaching the top percentiles for specific hazards (See Appendix). For example, the index score is at the 97th percentile for the state of Illinois for both NATA Diesel PM (µg/m<sup>3</sup>) and Respiratory Hazards.

These EPA findings underscore this area's severe EJ status and corroborate the conclusions of the UIC studies.<sup>1,2</sup>

## 3. Potential cumulative impacts and hazardous sources

In assessing the EJ status, the UIC team has focused on the sensitive populations in the area (i.e., K-8 students). We note that the Chicago Department of Public Health (CDPH) is taking this into account in consideration for the siting of another facility in the southeast part of the City: "The proposed facility boundary is approximately 1,250 feet from the nearest residences and approximately 1,600 feet from George Washington High School and Rowan Park." (Source: City of Chicago<sup>5</sup>)

As a screening tool, the UIC approach is to create a simple list of the overall hazardous sources to assess whether adding one more source is acceptable under the EJ principle of people (in this case children) sharing proportionately environmental consequences. Our MCVD EJ.3 dashboard provides a visualization of all these major sources that can potentially impact the schools.<sup>3</sup>

As seen in Figure 2, the new facility would be situated in a 3.14 square mile area that now contains:

- Eight (8) Chicago public schools with 3,359 children.
- One (1) asphalt plant (Reliable Ogden LLC).
- One (1) brownfield.

 Seven (7) TRI facilities (e.g., H KRAMER & CO) that emit 18 toxic chemicals, including the carcinogens trichloroethylene, tetrachloroethylene, methyl isobutyl ketone, nickel, lead, and di(2ethylhexyl) phthalate.



Figure 2. Location of proposed facility and the surrounding community within a 1-mile radius.



Figure 3. Magnetic crane and dump trailer operating in the SIMS scrap yard (Google Maps photo, Aug 2021)

Geographically, these eight schools are wedged between two industrial corridors (i.e., landscape burden). Three of the schools are less than 1-mile from the I-55 and I-90 expressways (See Figure 2). These corridors are a major source of heavy truck traffic, serving the numerous industrial and storage facilities as well as being the operational location of diesel-powered material handling equipment known for their diesel particulate matter and oxides of nitrogen emissions (See Figure 3).

To assess the impact of adding a new facility in an EJ community, we examined the existing burden on the nearby schools. The John Greenleaf Whittier Elementary School is selected to demonstrate this approach. This School is approximately 1,575 feet from the proposed facility – a distance that would take the average person about five minutes to walk - if they could walk in a straight line. Table 1 is based on the pre-COVID 2016-17 Chicago Public Schools database and provides demographics and distance for the four closest schools.

Table 1. Four K-8 schools closest to the facility						
School	Students	Low Income	Hispanic	Distance (ft)		
John Greenleaf Whittier	299	92.1%	99.1%	1,575		
Peter Cooper Elementary Dual Language Academy	459	88.7%	96.9%	3,051		
Irma C Ruiz	699	89%	96.3%	3,215		
Orozco Fine Arts & Sciences	541	89.6%	96.1%	4,035		
Source: 2016-17 Chicago Public Schools database - School Profile Information SY1617 Distances are derived from the MCVD EJ.3 interface.						

By taking the adjacent schools as the reference point for a preliminary screening assessment, the UIC approach aligns itself with the "child-centered approach to cumulative risk assessment" promoted by the World Health Organization.<sup>6</sup> Figure 4 shows the hazardous sources of concerns present in the immediate area of John Greenleaf Whittier, the selected example school.

Within a 1-mile radius of the Whittier school the following hazmat sources are found:

- Five (5) TRI reporting facilities emitting 16 toxic chemicals, including the carcinogens trichloroethylene, tetrachloroethylene, methyl isobutyl ketone, nickel, lead, and di(2-ethylhexyl) phthalate.
- One (1) railyard (Union Pacific Railroad Global I terminal).
- One (1) asphalt plant (Reliable Ogden LLC).
- One (1) brownfield.
- The landscape burden of being close to the industrial corridors to the north and south.

At a distance of only 565 feet from Whittier (a 2-minute straight-line walk) is a TRI reporting facility that emits tetrachloroethylene, trichloroethylene, and methyl isobutyl ketone – all known carcinogens. Because the existing permits for these facilities are not based on cumulative impacts or risks, the actual consequences and degree of environmental burden resulting from proximity to these multiple hazmat sources for the children living and going to school here cannot be fully known. The other schools in the zone share similar burdens, clearly demonstrating the high disparity in the distribution of potential environmental consequences across the city: many schools in northeast section of Chicago have no such hazmat sources near them.

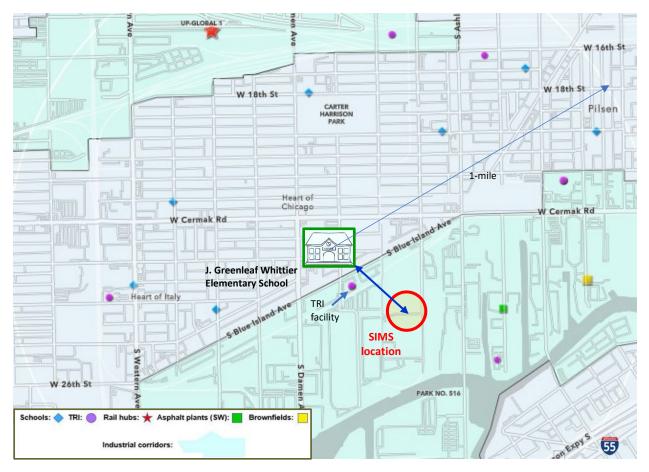


Figure 4. Whittier school and hazmat sources within 1-mile of the SIMS facility.

## 4. The need for a cumulative impact assessment framework

The EJ status of the schools in this section of the city raises serious issues that cannot be overlooked, and which go beyond the emission levels of any existing or planned facility. The City has already recognized the need to implement a cumulative impact framework of assessment to protect children. This recognition leads directly to a decision pathway already envisioned by City leaders: implementation of a new cumulative impact ordinance for EJ communities.

 "The City shares the US EPA's commitment to environmental justice and public health, and we look forward to partnering with them to conduct a fair, thorough and timely health impact analysis ... At the same time, Mayor Lori Lightfoot directed the City's Chief Sustainability Officer and the Department of Public Health to propose a new cumulative impact ordinance for consideration by the City Council before the end of this year, broadening its authority over air quality considerations, especially in Chicago's more industrialized neighborhoods." (Source: City of Chicago<sup>7</sup>)

Given the EJ status of the nearby schools in "industrialized neighborhoods," it is clear that the best approach for siting new facilities is the cumulative impact ordinance that the City of Chicago is planning to implement.

The importance of cumulative exposures is not something new. The concept has been well established since the Food Quality Protection Act (FQPA) of 1996, which required the US EPA to make cumulative assessments of the risks posed by exposures to pesticides. This law raised the awareness of such risks and led to the advancement and differentiation of cumulative risk and impact assessment methodologies. The

US EPA details this approach and established "A Framework for Assessing Health Risks of Environmental Exposures to Children".<sup>8</sup> States such as California, have been using cumulative impact methodologies to assess the EJ status of communities since the early 2000s. Recently, the New Jersey State passed the EJ law (C.13:1D-159 to 161; September 18, 2020) that requires permit applications to have an environmental justice impact statement for the nearby overburdened communities. At a city level, the City of Newark, NJ made history when the City Council passed a first-in-the-nation Environmental Justice and Cumulative Impacts Ordinance in July 2016.

### 5. Conclusion

The recent 2022-2026 EPA Strategic Plan Draft provides a thorough statement of the underlying issues that overburdened communities face.

• "Many of the problems that need to be addressed have been well-known but unsolved for decades. Communities that have multiple industrial and energy facilities and are saturated with legacy pollution want to see EPA realign its enforcement in a way that provides action, accountability, and guidance for taking cumulative impacts and risks into account, even if they cannot be measured with precision.

Permitting and rulemaking have typically not reflected the reality of overburdened communities, which means that it is often easier to site an eighth facility in a community that already has seven than in a community that has none. Since permitting is primarily implemented by other governmental partners with delegated authority from EPA, the work of integrating environmental justice and external civil rights considerations throughout all EPA programs and activities will require commitment, relationship building, and trust from partner agencies." (Source: US EPA<sup>9</sup>)

For overburdened communities in Southwest Chicago, their concerns, especially for children, can only be addressed using a cumulative impact framework for assessing the addition of one more facility near their children's schools.

## 6. Dashboards and References

All visualizations in this document are from the UIC Midwest Comprehensive Visualization Dashboard series, MCVD EJ, with interactive interface created by the UIC team. The original storymap that included interactive maps was created after a request from the Southwest Environmental Alliance (SEA) group in 2019. Since then, three dashboards (MCVD EJ.1, EJ.2, and EJ.3) were created.

- 1. Midwest Comprehensive Visualization Dashboard (MCVD EJ.1): Environmental Justice and Neighborhood Schools in Chicago, Illinois. Part 1. <u>https://doi.org/10.25417/uic.14597814.v3</u>
- Midwest Comprehensive Visualization Dashboard (MCVD EJ.2): Environmental Justice and Neighborhood Schools in Chicago, Illinois. Part 2. <u>https://doi.org/10.25417/uic.14998152.v1</u>
- Midwest Comprehensive Visualization Dashboard (MCVD EJ.3): A New Environmental Justice Tool for Chicago Communities. <u>https://doi.org/10.25417/uic.18634961.v1</u>
- 4. US Environmental Protection Agency. Environmental Justice. Last accessed, January 2022. https://www.epa.gov/environmentaljustice/learn-about-environmental-justice.
- City of Chicago. RMG Expansion on Southeast Side. Download Responses to questions raised during the hearing. Last accessed, February 3, 2022. <u>https://www.chicago.gov/content/dam/city/sites/rgmexpansion/documents/CDPHRMGResponse.pdf</u>

- 6. World Health Organization. (2006). Principles for evaluating health risks in children associated with exposure to chemicals. World Health Organization. <u>https://apps.who.int/iris/handle/10665/43604</u>.
- 7. City of Chicago. RMG Expansion on Southeast Side. Last accessed, February 3, 2022. https://www.chicago.gov/city/en/sites/rmg-expansion/home.html.
- U.S. Environmental Protection Agency (EPA). (2006) A framework for assessing health risks of environmental exposures to children. National Center for Environmental Assessment, Washington, DC; EPA/600/R-05/093F.
- U.S. Environmental Protection Agency (EPA). Draft FY 2022-2026 EPA Strategic Plan October 1, 2021. Available at: <u>https://www.epa.gov/system/files/documents/2021-10/fy-2022-2026-epa-draft-strategic-plan.pdf</u>. Last accessed, February 3, 2022.

### Affiliations

- Cailas, M. D. Environmental and Occupational Health Sciences, School of Public Health, University of Illinois Chicago.
- Derrible, S. College of Engineering, Department of Department of Civil, Materials, and Environmental Engineering.
- Miranda, F. College of Engineering, Department of Computer Science, University of Illinois Chicago.
- Sambanis A. Health Policy and Administration, School of Public Health, University of Illinois Chicago.
- Siciliano, M. College of Urban Planning and Public Affairs, Department of Public Administration.

### ACKNOWLEDGEMENTS

The authors would like to acknowledge the recommendations and editing advice of Ms. Nina Sandlin that improved the publications' quality.

#### DISCLAIMER

This work was requested by the 25<sup>th</sup> Ward Alderman Byron Sigcho-Lopez and from Southwest Chicago community groups. All the authors conducted this work on a pro bono basis.

This work is provided "AS IS" without any kind of warranty or conditions of any kind, either express or implied, including, without limitation, any warranties or conditions of title, non-infringement, or fitness for a particular purpose. End-users are solely responsible for determining the appropriateness of using or redistributing the work and assume any risks associated with their exercise of permissions. In no event shall UIC or the authors be liable for any claim, damages, or other liability arising out of or in connection with this work.

This is an open-access document distributed under the terms of the Creative Commons Organization: Attribution, Non-Commercial 4.0 Unported International License (CC BY-NC 4.0). This license allows reuse to copy and distribute the material in any medium or format in unadopted form only, for non-commercial purposes, and only so long as the corresponding author is notified, and the source is credited.

Corresponding author: Michael D. Cailas (mihalis@uic.edu)

# APPENDIX

The following pages include the reports from the EJSCREEN



# **EJSCREEN ACS Summary Report**



Location: User-specified point center at 41.847730, -87.668967

Ring (buffer): 1-miles radius

Description: SIMMS 2500 S. Paulina St, Chicago, IL, 60608, USA

Summary of ACS Estimates	2014 - 2018
Population	35,008
Population Density (per sq. mile)	11,774
People of Color Population	28,594
% People of Color Population	82%
Households	12,811
Housing Units	14,361
Housing Units Built Before 1950	10,693
Per Capita Income	24,008
Land Area (sq. miles) (Source: SF1)	2.97
% Land Area	95%
Water Area (sq. miles) (Source: SF1)	0.15
% Water Area	5%

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	35,008	100%	626
Population Reporting One Race	34,138	98%	1,804
White	16,587	47%	621
Black	1,340	4%	231
American Indian	254	1%	108
Asian	3,822	11%	323
Pacific Islander	0	0%	11
Some Other Race	12,134	35%	510
Population Reporting Two or More Races	869	2%	132
Total Hispanic Population	23,196	66%	654
Total Non-Hispanic Population	11,812		
White Alone	6,414	18%	323
Black Alone	1,229	4%	231
American Indian Alone	44	0%	30
Non-Hispanic Asian Alone	3,795	11%	323
Pacific Islander Alone	0	0%	11
Other Race Alone	13	0%	72
Two or More Races Alone	317	1%	97
Population by Sex			
Male	17,931	51%	349
Female	17,077	49%	341
Population by Age			
Age 0-4	1,698	5%	123
Age 0-17	6,955	20%	249
Age 18+	28,052	80%	431
Age 65+	3,773	11%	161

Data Note:
Detail may not sum to totals due to rounding.
Hispanic population can be of any race.

N/A means not available.
Source:
U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018



## **EJSCREEN ACS Summary Report**



Location: User-specified point center at 41.847730, -87.668967

Ring (buffer): 1-miles radius

Description: SIMMS 2500 S. Paulina St, Chicago, IL, 60608, USA

opulation 25+ by Educational Attainment otal Less than 9th Grade	24,276 4,482 2,991 5,326 4,839	100% 18% 12%	424 214
Less than 9th Grade	4,482 2,991 5,326	18% 12%	
	2,991 5,326	12%	214
	5,326		
9th - 12th Grade, No Diploma			151
High School Graduate	4 839	22%	269
Some College, No Degree	4,000	20%	212
Associate Degree	1,352	6%	111
Bachelor's Degree or more	6,638	27%	214
opulation Age 5+ Years by Ability to Speak English			
otal	33,310	100%	591
Speak only English	10,493	31%	310
Non-English at Home <sup>1+2+3+4</sup>	22,818	69%	558
<sup>1</sup> Speak English "very well"	13,324	40%	406
<sup>2</sup> Speak English "well"	3,215	10%	239
<sup>3</sup> Speak English "not well"	4,075	12%	281
<sup>4</sup> Speak English "not at all"	2,203	7%	157
<sup>3+4</sup> Speak English "less than well"	6,279	19%	317
<sup>2+3+4</sup> Speak English "less than very well"	9,494	29%	397
inguistically Isolated Households*			
otal	2,405	100%	140
Speak Spanish	1,903	79%	137
Speak Other Indo-European Languages	52	2%	47
Speak Asian-Pacific Island Languages	450	19%	69
Speak Other Languages	0	0%	11
ouseholds by Household Income			
ousehold Income Base	12,811	100%	182
< \$15,000	1,961	15%	146
\$15,000 - \$25,000	1,551	12%	140
\$25,000 - \$50,000	3,578	28%	142
\$50,000 - \$75,000	2,502	20%	142
\$75,000 +	3,219	25%	116
Decupied Housing Units by Tenure	0,210	2070	110
otal	12,811	100%	182
Owner Occupied	4,343	34%	132
Renter Occupied	8,468	66%	132
mployed Population Age 16+ Years	0,400	00%	104
otal	28,775	100%	491
In Labor Force	19,846	69%	396
Civilian Unemployed in Labor Force	1,372	5%	133
Not In Labor Force	8,930	31%	340

DataNote:Datail may not sum to totals due to rounding.Hispanic population can be of anyrace.N/Ameans not available.Source:U.S. Census Bureau, American Community Survey (ACS)\*Households in which no one 14 and over speaks English "very well" or speaks English only.



## **EJSCREEN ACS Summary Report**



Location: User-specified point center at 41.847730, -87.668967 Ring (buffer): 1-miles radius Description: SIMMS 2500 S. Paulina St, Chicago, IL, 60608, USA

	2014 - 2018 ACS Estimates	Percent	MOE (±
pulation by Language Spoken at Home <sup>*</sup>			
tal (persons age 5 and above)	34,643	100%	61
English	10,950	32%	41
Spanish	20,214	58%	63
French	29	0%	5
French Creole	N/A	N/A	N/.
Italian	N/A	N/A	N/
Portuguese	N/A	N/A	N/
German	41	0%	2
Yiddish	N/A	N/A	N/
Other West Germanic	N/A	N/A	N/
Scandinavian	N/A	N/A	N/
Greek	N/A	N/A	N/
Russian	N/A	N/A	N
Polish	N/A	N/A	N
Serbo-Croatian	N/A	N/A	N/
Other Slavic	N/A	N/A	N
Armenian	N/A	N/A	N
Persian	N/A	N/A	N
Gujarathi	N/A	N/A	N
Hindi	N/A	N/A	N
Urdu	N/A	N/A	N
Other Indic	N/A	N/A	N
Other Indo-European	81	0%	Ę
Chinese	2,550	7%	36
Japanese	N/A	N/A	N
Korean	188	1%	11
Mon-Khmer, Cambodian	N/A	N/A	N
Hmong	N/A	N/A	N
Thai	N/A	N/A	N
Laotian	N/A	N/A	N
Vietnamese	10	0%	2
Other Asian	76	0%	3
Tagalog	87	0%	4
Other Pacific Island	N/A	N/A	N
Navajo	N/A	N/A	N
Other Native American	N/A	N/A	N
Hungarian	N/A	N/A	N/
Arabic	184	1%	16
Hebrew	N/A	N/A	N
African	N/A	N/A	N
Other and non-specified	23	0%	
Total Non-English	23,694	68%	72

**Data Note:** Detail may not sum to totals due to rounding. Hispanic popultion can be of any race. N/A meansnot available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018. \*Population by Language Spoken at Home is available at the census tract summary level and up.



## **EJSCREEN Report (Version 2020)**



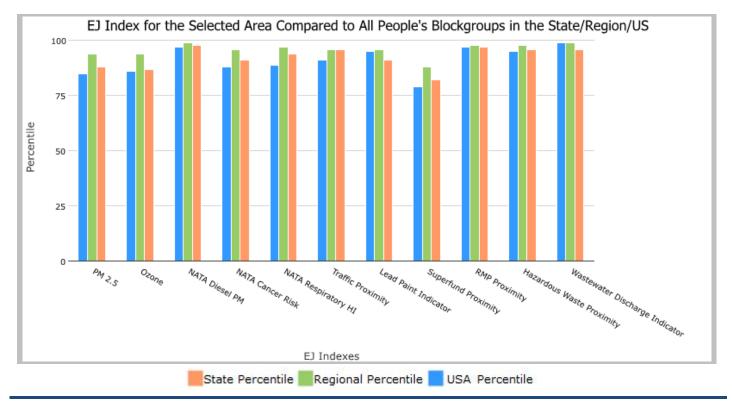
#### 1 mile Ring Centered at 41.847730,-87.668967, ILLINOIS, EPA Region 5

#### **Approximate Population: 35,008**

Input Area (sq. miles): 3.14

#### SIMMS 2500 S. Paulina St, Chicago, IL, 60608, USA

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	88	94	85
EJ Index for Ozone	87	94	86
EJ Index for NATA <sup>*</sup> Diesel PM	98	99	97
EJ Index for NATA <sup>*</sup> Air Toxics Cancer Risk	91	96	88
EJ Index for NATA <sup>*</sup> Respiratory Hazard Index	94	97	89
EJ Index for Traffic Proximity and Volume	96	96	91
EJ Index for Lead Paint Indicator	91	96	95
EJ Index for Superfund Proximity	82	88	79
EJ Index for RMP Proximity	97	98	97
EJ Index for Hazardous Waste Proximity	96	98	95
EJ Index for Wastewater Discharge Indicator	96	99	99



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.



## **EJSCREEN Report (Version 2020)**



1 mile Ring Centered at 41.847730,-87.668967, ILLINOIS, EPA Region 5

#### **Approximate Population: 35,008**

Input Area (sq. miles): 3.14

#### SIMMS 2500 S. Paulina St, Chicago, IL, 60608, USA

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu g/m^3$ )	9.49	9.13	77	8.4	90	8.55	81
Ozone (ppb)	46.7	46.5	54	43.8	86	42.9	80
NATA <sup>*</sup> Diesel PM (µg/m <sup>3</sup> )	2.02	0.67	97	0.446	95-100th	0.478	95-100th
NATA <sup>*</sup> Cancer Risk (lifetime risk per million)	43	33	91	26	95-100th	32	90-95th
NATA <sup>*</sup> Respiratory Hazard Index	0.7	0.42	97	0.34	95-100th	0.44	95-100th
Traffic Proximity and Volume (daily traffic count/distance to road)	1600	630	92	530	93	750	88
Lead Paint Indicator (% Pre-1960 Housing)	0.78	0.41	84	0.38	87	0.28	92
Superfund Proximity (site count/km distance)	0.048	0.096	45	0.13	41	0.13	41
RMP Proximity (facility count/km distance)	5.1	1.2	97	0.83	98	0.74	98
Hazardous Waste Proximity (facility count/km distance)	12	4.1	93	2.4	97	5	94
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	15	6.4	93	2.4	97	9.4	98
Demographic Indicators							
Demographic Index	64%	34%	85	28%	91	36%	86
People of Color Population	82%	38%	84	25%	92	39%	85
Low Income Population	47%	29%	79	30%	79	33%	76
Linguistically Isolated Population	19%	5%	92	2%	97	4%	92
Population With Less Than High School Education	31%	11%	92	10%	95	13%	91
Population Under 5 years of age	5%	6%	40	6%	41	6%	39
Population over 64 years of age	11%	15%	35	16%	29	15%	34

\* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

#### For additional information, see: <u>www.epa.gov/environmentaljustice</u>

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.