Investigating Environmental Equity Among the Median Family Income in the Minneapolis-St.Paul Metro Area: A Study of Air Polluting Facilities, Superfund Sites, and Land Recreation Areas
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Results
- The median family income for the entire metro is $64,328. The median family income for people who live within 1000 meters a park is $66,023 (Fig. B).
- Observation of Figure C shows a high concentration of facility sites in lower income areas. Specifically, the median family income per block was $58,392 around buffered facility sites. This is lower than the mean of the median family income per block for the entire metro area which was found to be $64,328.
- There are 6 facility sites that emit high levels of air pollutants. One third of the sites are located in areas that have a relatively low median family income (Fig. D).
- In the seven county metro area 8% of the population is considered to be living in poverty. The relationship between median family income and proximity to superfund sites showed that outside of the 2000-meter buffer surrounding current superfund sites, 5% of the population lives below the official poverty line whereas within the buffers, 11.1% of the population lives below the official poverty line. Additionally, within the 2000-meter buffer surrounding all current and potential superfund sites the median family income was 18% lower than that of the surrounding metro area.
- Proportionally, more minority families inhabit the lowest income bracket of the metro-counties than in the higher income bracket (Fig. H).

Discussion
- Once again, there has been found to be some indication of environmental injustice. Park location showed no relationship to levels of income. Facility locations were primarily located in low-income areas. One third of facilities that emitted the highest criteria pollutant amounts were located in these lower income areas. There exists a relationship between location of superfund sites and the percentage of people under the poverty line. The percentage of people in poverty was double in areas of close proximity to superfund sites when compared with those populations not adjacent to listed sites.

Discussion of Race and Income
- Environmental justice is important in ensuring equality among all peoples. It’s interesting to consider connections among the environment, racial, and socioeconomic groups.
- More research is needed to make conclusive statements about environmental justice and many questions are left to be answered. For instance, it is clear that poor, minority populations are more likely to live in close proximity to heavy industrial areas that could have adverse health and aesthetic effects. However, it is unclear whether the placement of these sites is intentional or coincidental. It has been suggested that heavy industry may take advantage of situations in which populations have less political power or means to encourage environmentally responsible industry.
- It’s clear that there are disparities between who is receiving the negative effects of environmentally degrading actions and those who benefit. Minorities, through earning less income, may potentially suffer more injustice than non-minorities.
- This fact should be consulted in further research in order to promote equality of environmental costs and benefits. We find it encouraging that parks are equally distributed environmental benefits among all people in the Minneapolis metro area.

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