Synthesizing the Relationship Between Environmental Racism and Educational Attainment for Southeast Asian Youth in North Orange County, CA

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ABSTRACT

From an environment destroyed by war to navigating environmental health disparities, Southeast Asian youth are caught in a cycle of survival two to three generations from their family's refugee resettlement into the United States. For Southeast Asian Americans, this means being faced with heightened environmental health risks, as many immigrant communities face, such as poor air quality and exposure to toxic chemicals. Within Orange County, California, there exists stark disparities between the North and South—in immigrant populations, air pollution exposure, income levels, and politics. To protect these refugee communities as well as their youth it is imperative that we engage with their lived experiences to better understand what processes are affecting them and how these relationships are webbed together. Coupling immigrant communities' heightened environmental health risks with Southeast Asian American's generally low educational attainment, what this study aimed to do was synthesize how the relationship between these two entities affected Vietnamese and Laotian youth from North Orange County—which has a higher environmental risk index than the South as well as larger immigrant population. To assess this, I interviewed a group of individuals who attended secondary school in North Orange County, and focused on evaluating their experiences with environmental health and if it affected their education. The results indicate that Southeast Asian youth rely on proximity to environmental health disparities in order to acknowledge the existence of them; yet even with acknowledgement, many exhibit behaviors that could be linked to the inert psyche to constantly be in survival mode as passed down from refugee resettlement history. Recognizing a relationship between environmental racism and educational attainment was not conceived until the subject had physically left North Orange County, in most cases this was due to the pursuit of higher education. The findings from this study offer insight to the lack of accessible environmental education in Orange County, as well as a lack in policy and practices to protect vulnerable communities. Additionally, this study contributes to discussion surrounding the development of refugee communities two generations out from initial resettlement, with a focus on their youths' success and livelihood.

KEYWORDS

environmental justice, environmental health, health disparities, health inequities, refugee resettlement, Vietnamese, Laotian

INTRODUCTION

Southeast Asian American communities—namely Laotian, Cambodian, Hmong, and Vietnamese—are at most three generations away from their fairly recent refugee resettlement in the United States, still navigating survival after escaping war. These communities were displaced from their motherland due to the wars in the Vietnam, Laos, and Cambodia—the Vietnam War, the Secret War, and the Khmer Rouge respectively—and were initially situated in various parts of the United states with a reliance on sponsors and government aid, yet many experienced a secondary migration after their initial resettlement (Connor 2010; Rumbaut 2006). Due to U.S. policy and these communities reliance on government aid for support, Southeast Asian communities were typically situated in historically disadvantaged neighborhoods that face social issues such as poor infrastructure, low socio-economic status, underfunded public schools, and environmental racism (Sze 2011; Tam & Freisthler 2015). These communities are still navigating their recent resettlement, yet lack accessible resources to be equipped with processing their dual identity—as Southeast Asian *and* American—and social disparities. With how the 'model minority myth' affects the larger Asian American discourse, Southeast Asians are prone to feeling intensified stress and shame as their identity becomes more complex due to their recent refugee history (Connor 2010; Saraiya et al. 2019; Yang 2004). As opposed to data that depicts the Asian American population as having high socio-economic status and high educational attainment, disaggregated data reveals that there are disparities amongst the different Asian American subgroups (López et al. 2017a,b; Rawlings et al. 2007). Southeast Asians, more particularly Laotians, are at similar educational attainment levels at the Hispanic population in the U.S., which correlates to the resettlement of Southeast Asian communities in historically Hispanic communities, both communities experiencing lack of resources to supplement social growth (Pew Research Center 2019; Rawlings et al. 2007).

Disadvantaged neighborhoods are more prone to experiencing environmental health disparities at a higher proportion than more socially affluent communities; this is referred to as 'environmental racism.' Environmental racism is defined as the systematic establishment of policies or practices that directly or differentially affect disadvantaged communities based on race or color (Bullard 2001). I expand more upon the origins of environmental racism and environmental justice in the next section. Some forms in which environmental racism manifest

include hazardous air quality, contaminated water, food apartheids, and exposure of toxic chemicals in proximity to community members—such as individuals in blue-collar jobs being subjected to working with chemicals or a whole community living within proximity to an oil refinery—all of which disproportionately affect communities of color (Taylor 2014). Studies have depicted that there exists a relationship between environmental health disparities and youths' academic performance; more stressors—such as increased risk to hazardous air pollution—can influence the overall academic performance of youth in addition to psychological stress (Gee & Payne-Sturges 2004; Pastor et al. 2004). However, these studies mainly analyze African American and Latino communities, and do not usually include Asian American communities in their data. Of the studies that do focus on air toxins and Asian American communities, there a gap in supplementary work for Southeast Asians specifically (Grineski et al. 2017, 2019). Considering their historically low educational attainment as well as their refugee resettlement history into historically disadvantaged neighborhoods, Southeast Asians are centered at an intersection of environmental racism, refugee history, educational attainment gaps, and Asian American discourse; yet little is published on the implications this has on the seconds and third generation of Southeast Asian Americans.

For this study, I aimed to address this gap in knowledge by supplementing work that would fill a void regarding Southeast Asians and environmental justice. My main research question was: How does environmental racism in North Orange County, California, affect Laotian and Vietnamese youth's personal trajectory to college? To address this, I explored these three sub-questions: (1) How do members of these communities define and comprehend concepts related to 'environment' and 'environmental racism?'; (2) What environmental health disparities are prevalent—and acknowledged—in these communities?; and (3) What aspects of the environment factor into educational attainment for Laotian and Vietnamese youth? I conducted interviews with an aim to have an induced qualitative content analysis that would synthesize the relationship between environment and education—as well as the multitude of other complex relationships at play—for Southeast Asian individuals.

Southeast Asian refugee resettlement in the United States: History, demographics, and educational attainment disparities

In the 1970s, multiple wars and conflicts devastated Southeast Asia—the Vietnam War, Secret War, and Khmer Rouge (also referred to as the Cambodian Genocide)—resulting in a massive displacement of many ethnic groups—including, but not limited to, Vietnamese, Laotian, Cambodian, Hmong and Iu-Mien. It was not until 1975 that the U.S. passed the Indochina Migration and Refugee Assistance Act—in response to the Fall of Saigon—where approximately 130,000 refugees were allotted relocation aid and financial assistance into the U.S. Southeast Asian refugee resettlement—typically referred to in three waves—occurred over the span of 20 years, with many experiencing a secondary migration into a different zip code after their initial resettlement (Han 2004; Rumbaut 2006; Yang 2004). This resettlement—including those that faced secondary migration—led to the populous communities of Vietnamese, Laotian, and Cambodian peoples in California.

Southeast Asian demographics in California

According to a statistical profile document, compiled from 2010 U.S. Census data, there are 910,433 Southeast Asian Americans reported in California, making up about 36.3% of the total Southeast Asian American population in the United States (Hoeffel et al. 2012; SEARAC 2011). Within this profile, there is a section that breaks down Vietnamese, Cambodian, Laotian, and Hmong population by state; for California's demographics, there is a recorded 102,317 Cambodian, 91,224 Hmong, 69,303 Laotian, and 647,589 Vietnamese (SEARAC 2011). However, the profile does specify further by county or city. Though it is possible to have the data on Laotian and Vietnamese population totals in California, and for Vietnamese in certain counties, it is not possible to have an exact population number for Laotian by county. Since resettlement, Southeast Asian American communities have established multiple ethnic enclaves in different regions or cities in California. For this study in particular, there are multiple references to the established Little Saigon in Garden Grove, California, however there is also an established Little Saigon in San Jose, California. The formation ethnic enclaves can give a shared sense of community and

cultural belonging, which is crucial to the survival of Southeast Asian communities—stemming from war trauma and displacement (Bui 2018; Kula & Paik 2016; Perez et al. 2019).

Comparative educational opportunity gap within Asian American population

Disaggregated data shows that Southeast Asians have very different educational narrative than aggregated Asian American demographic data may present. Broadly speaking, Southeast Asians are less likely to graduate with a bachelor's degree or higher. This can be seen in data compiled by the Pew Research Center for Laotian and Vietnamese populations, displaying that the two populations face lower educational attainment then overall Asian Americans and even compared to all Americans (Figure 1 and Figure 2). Even within the Southeast Asian populations, there exists differences in attainment which could be contextualized by the 'wave' of resettlement; the Vietnamese population is more likely to have more advanced educational attainment than Laotian groups due to their 'elite' first-wave that enabled this community to congregate and establish ethnic enclaves before other groups resettled—Laotian, Hmong, and Cambodian (Kula & Paik 2016; López et al. 2017a,b).

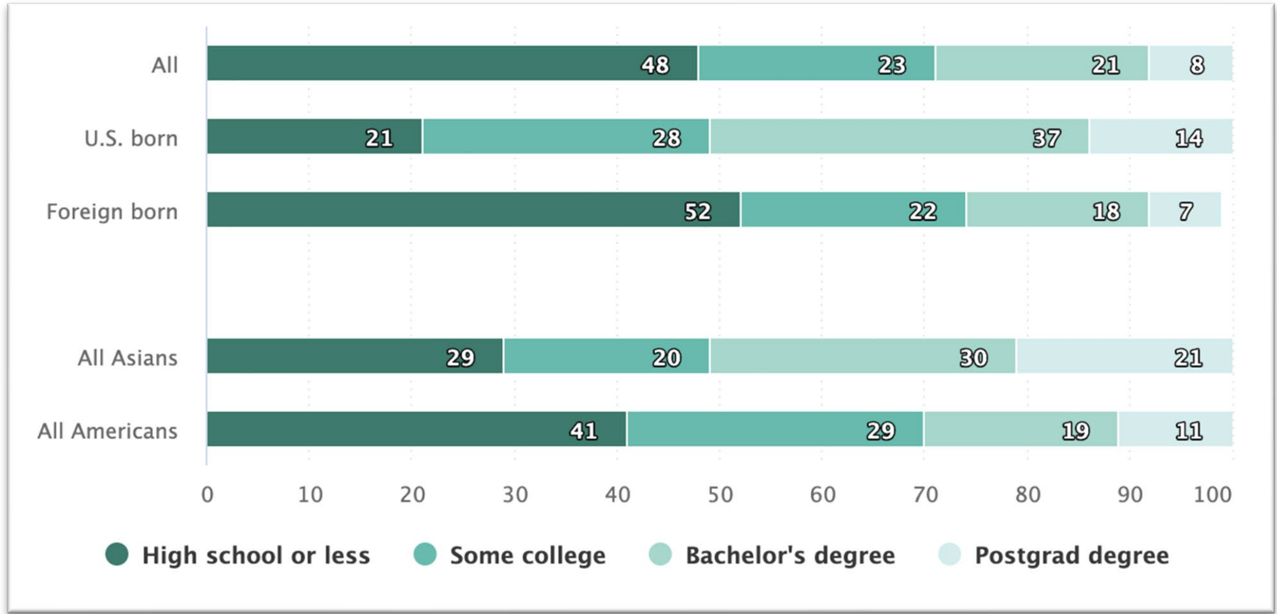


Figure 1. Educational attainment of Vietnamese population in the U.S., 2015. Provided by the Pew Research Center (López et al. 2017a). Data is percent of those 25 and older.

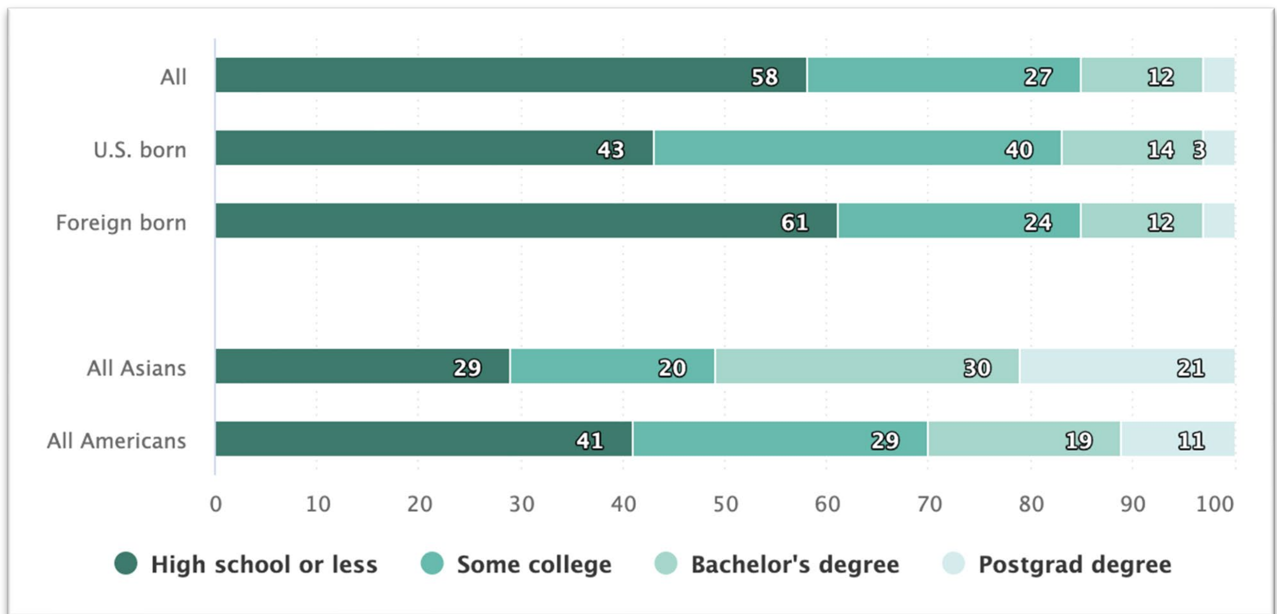


Figure 2. Educational attainment of Laotian population in the U.S., 2015. Provided by the Pew Research Center (López et al. 2017b). Data is percent of those 25 and older.

Environmental justice and the environmental racism framework

The origins of the environmental justice movement began in the 1970s and 1980s, stemming from communities of color organizing against the exploitation of their labor, notably in campaigns regarding pesticides that affected farm workers, lead-poisoning in inner-city, and the placement of noxious facilities—landfills, polluting industrial complexes, and incinerators—in proximity to where their communities had already been established (Taylor 2000, 2014). Communities of color had been engaged in these life-death scenarios for environmental justice decades before the movement was defined (Bullard & Johnson 2000; Sze 2004). The EPA defines environmental justice as the fair treatment and involvement of all people--regardless of race, socioeconomic status and national origin--in the development and implementation of environmental policy, law and regulations (EPA 2007).

With the rise of the environmental justice movement, led by communities of color, the term 'environmental racism' was coined in 1987 by Benjamin Chavis, an African-American civil rights leader in his release of "Toxic Wastes and Race in the United States" (UCC 1987). This study proved a direct relationship between environmental toxins and race—with black communities facing more extreme forms of toxins than white communities—by proving there was a correlation between placement of toxic waste facilities and its proximity to black communities. Environmental racism is defined as the deliberate targeting of ethnic and minority communities for exposure of toxins and hazardous waste sites and facilities, additionally in conjunction with systematic exclusion of minorities in environmental policy making, enforcement, and remediation (Taylor 2014). However, for the sake of this study I used a more broad definition as defined before: Environmental racism is defined as the systematic establishment of policies or practices that directly or differentially affect disadvantaged communities based on race or color (Bullard 2001).

Orange County, California: Development and differences

In the early stages of Orange County's development, it was a growing suburbia that began development as white populations moved away from urban cities—namely Los Angeles (Kling et al. 1995). However, Orange County has shown drastic changes from the 1960s to now, where the complexion of Orange County, particularly inland areas like Anaheim, has a predominantly Latino

and Asian Pacific Islander make-up (Pulido 2000). Today, immigrants make up one-third of Orange County's population, with a majority arriving from 1980 to 2000. Orange County is the third largest county of Asian Pacific Islander population, behind Los Angeles and Santa Clara County with its top five Asian populations being: Vietnamese, Korean, Filipino, Chinese, and Indian. Despite Orange County's demographic diversity, there exists a prevalent divide between ethnic and racial communities and the inequalities they face (Waheed et al. 2014).

By contextualizing these disparities, Orange County could be divided into a North and South. North Orange County was the first part of the county to be developed into a suburbia formed from movement of white populations out of Los Angeles, and now this suburban movement has also moved to South (Kling et al. 1995; Pulido 2000). Today, North Orange County—which includes cities such as Anaheim, Fullerton, and Santa Ana—is known to be more racially diverse, densely populated, less wealthy, having higher unemployment, more renters than homeowners, and more registered democratic voters than republican. Whereas, South Orange County—which includes cities such as Irvine, Newport Beach, Mission Viejo—is more newly developed, wealthy, more residential, and less racially diverse (Waheed et al. 2014). Considering the accessibility to data mentioned before, coupled with the congregation of Southeast Asian populations in the Northern region of Orange County, I defined my study's parameters to only observe individuals who reside in North Orange County.

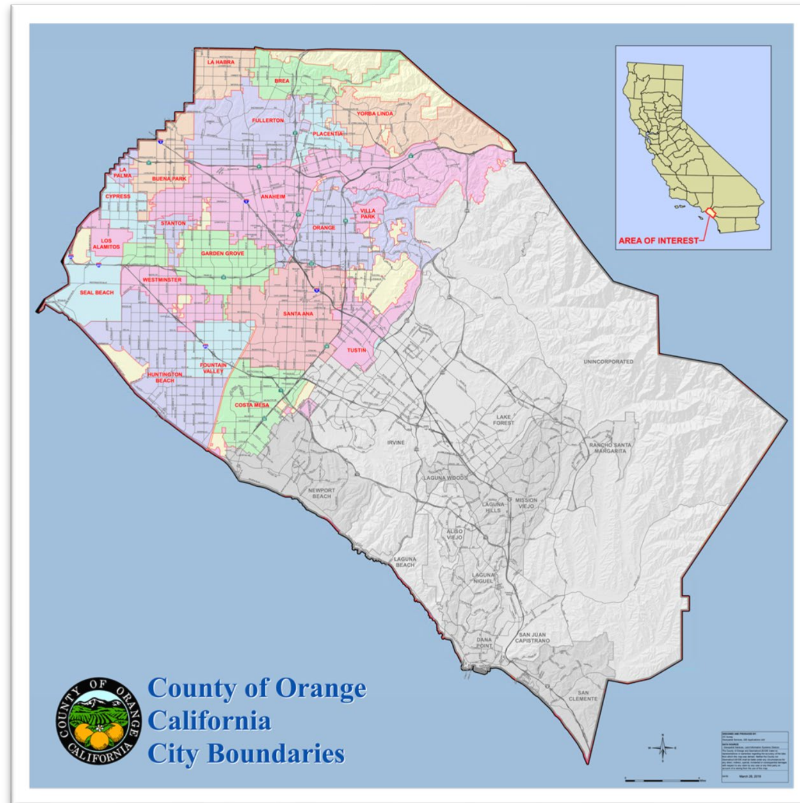
METHODS

Study site: North Orange County and Little Saigon

This study focused on North Orange County, California, which includes all cities north of Irvine and Newport Beach; this includes cities such as Anaheim, Cypress, Garden Grove, and Westminster (Figure 3a). I chose to focus more on the central portion of North Orange County in accordance with CalEnviroScreen scores, these scores depicting a noticeable difference in North versus South's exposure to environmental risks (Figure 3b). Additionally, North and South Orange County have vastly different ethnic make-ups, with more Hispanic and Southeast Asian populations in the North—this can be demonstrated with the large Vietnamese population in proximity to Little Saigon, Garden Grove. Considering the limited accessibility to Laotian

demographic data from the U.S. Census as well as third-party resources, coupled with the abundance of Vietnamese demographic data, I chose to only interview Vietnamese and Laotian individuals. With this scope, I would be engaging with both a largely represented group—Vietnamese—as well as a lesser so represented group—Laotian—in the Southeast Asian American narrative. By doing so, I aimed to acknowledge that even with an intertwined history, there still exist disparities and differing experiences within the Southeast Asian population.

(a)



(b)

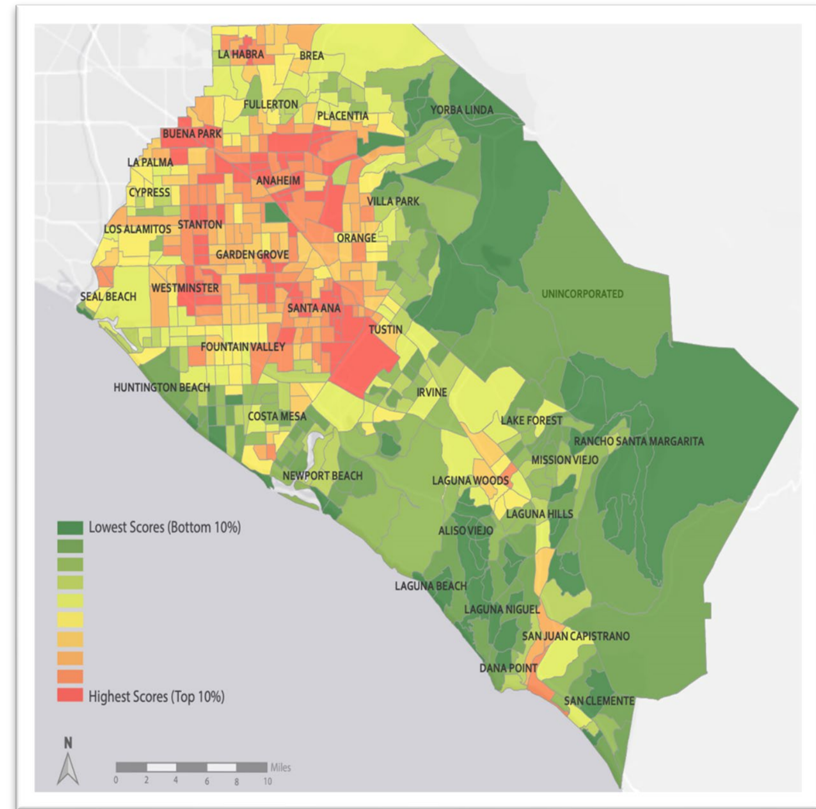


Figure 3. Study Area. (a) Map of Orange County, with North Orange County in color and South Orange County in gray-scale. (OCPW 2019); (b) CalEnviroScreen scores for Orange County, 2014; Census tracts with higher scores (red) are estimated to have higher levels of pollution and thus higher environmental risk, lower scores (green) are estimated to have lower levels of pollution and thus less environmental risk (Waheed et al. 2014).

Subject criteria and interview process

To conduct this study, subjects were recruited from across North Orange County to participate in interviews. Initially, I aimed to conduct ten interviews at minimum and would take place from February into early-April, however with the outbreak of COVID-19, interviews were halted mid-March and only six interviews were completed. The criteria for subjects were as follows: between the ages 18-25, Laotian and/or Vietnamese identifying, resided in North Orange County for at least 5 years, and spoke English. Due to this criterion, subjects were typically 2nd generation Southeast Asian American—which is defined as having parents who were refugees, but the participant themselves were born in America.

This study used a qualitative research approach, which comprised of conducting interviews, transcribing then implementing an inductive approach for content analysis. The interviews were conducted late-February to late-March. Participants were selected based on my personal network of friends, mentors, and colleagues who fit the criteria. The interviews were conducted both in-person, around North Orange County, or through phone call and on average lasted an hour. The interview comprised of four sections: background, environmental health, education, and closing (see Appendix A). Prior to interviews, participants were given informed consent on the context of the study, procedures, and rights to privacy and confidentiality. Interviews were audio-recorded and transcribed after, using pseudonyms and codes to protect identifiable information. Transcriptions were then analyzed for themes, concepts, and frequency of answers.

RESULTS

Demographic breakdown

For the demographics of the participants, there were more Vietnamese individuals than Laotian individuals, as well as more female than male participants, with age on the younger end of the criteria's spectrum, most being 18-22 years old (Table 1). For the most part, the group was diverse in highest educational attainment and the city which they resided in.

Table 1. Demographics of participants. The collected various demographics of the six total participants.

Demographic	Category	n	Percent of total group
Ethnicity	Laotian	2	33.3
	Vietnamese	4	66.7
Sex	Female	4	66.7
	Male	2	33.3
Age	18-22	5	83.3
	23-25	1	16.7
Educational attainment	High school or less	1	16.7
	Undergraduate	4	66.7
	Graduate	1	16.7
City	Anaheim	2	16.7
	Buena Park	1	16.7
	Santa Ana	1	16.7
	Stanton	1	16.7
	Westminster	1	16.7

Educational attainment

The large majority of interviewees recruited were current undergraduate students. Of the total six interviewees, only one did not pursue a degree after post-secondary school. When educational attainment was broken down by ethnicity, we see that the results are similar to that of Pew Research Center's fact sheets on Laotian and Vietnamese educational attainment in the United States (López et al. 2017a,b). From this study group, we see that the Vietnamese group were more likely to attain education at the undergraduate and graduate level, while the Laotian group were more likely to be at high school or undergraduate level (Figure 4).

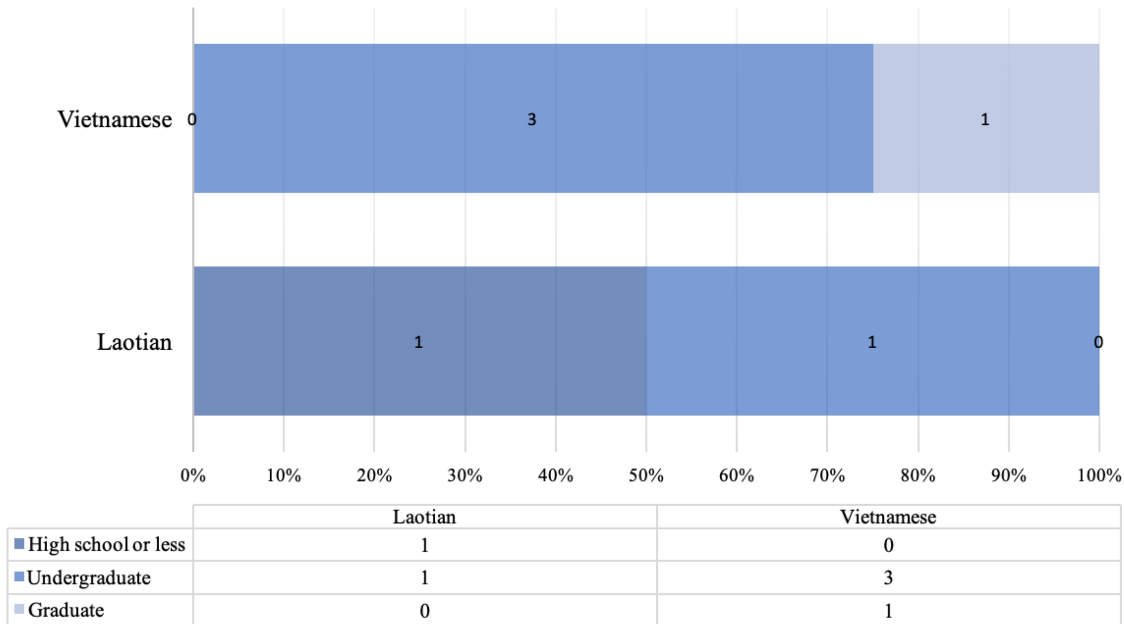


Figure 4. Educational attainment for the participants based on ethnicity. The results from this study are similar to overall Vietnamese and Laotian educational attainment data in the United States; Vietnamese populations are more likely to be achieving undergraduate or graduate level and Laotian population are more likely to have high school or undergraduate as their highest level of educational attainment.

Discussing community, environment, and environmental racism

Many interviewees expressed that they do not usually take the time to think about the 'environment' in Orange County, with some stating they had not heard the term 'environmental racism' prior to the interview. However, some interviewees, notably ones that had relocated to the San Francisco Bay Area for college, had heard the term 'environmental racism' from courses they had taken or community work they were involved in.

Moving into the remainder of the interview, it will be compiled from inducted content analysis. For the environmental health section, it began with having the participants discussing 'community' and 'environment' as they define it. For their respective 'community,' many participants described their area as diverse in ethnicity, yet there also existed a clear divide between ethnic groups—which sometimes would correlate with ethnic enclaves (Table 2)

Table 2. Questions and themes for "Section 2: Environmental Health" of interview.

Question	Theme
1. How would you describe your community in Orange County?	1. Mixed or diverse—specifically Vietnamese, Latino, and White population 2. Suburban 3. Clear divides between areas, both on the county and city level 4. Poor infrastructure 5. Densely populated 6. Republican 7. Apathetic to global issues and social issues
2. How do you define 'environment'?	1. System of natural, living things that surround us 2. Clean and comfortable space that serves as a habitat 3. High-pressure and stressful

For many of the participants, it was difficult to define the term 'environment' with many mentioning that they had not thought about it prior to the interview and leaving their definitions vague. One participant related their daily routine to environment, stating that it felt like a "rat-race":

> "It's kind of hard out here, I don't really know the reason, but it just feels that way, maybe because its so many people. I tell myself that one day, when I can, I would love to move out of Orange County, but I don't know where to go…I guess it is many things."

Each participant's definition of the 'environment' differed—though in some instances only by a few words. One participant who invested themselves in environmental education in secondary school—by their own studying outside of their curriculum—defined the environment as:

> "A system of living and non-living beings that are interacting with each other to support one another, and that includes plants, animals, and people but also the water, air, and earth"

When asked about environmental racism, only a handful of participants had heard of the term prior to the interview, with one having heard of it through social media (Table 3). Thus, for this portion of the interview, most participants did not have confident definitions of concepts relating to environmental health.

Table 3. Questions and themes for "Section 2: Environmental Health" of interview (continued).

Question	Answer	n	Frequency
2a. Have you heard of the term 'environmental racism' before?	Yes	2	33.3
	No	4	66.7
2b. If yes, how would you define it?	"I think it's when you are of a certain race, class, or ethnicity and you've been systemically put into areas that don't have the best climate in terms of like a lot of pollution, broken roads, or strategically placed near factories." "I've only learned about recently through social media so maybe my definition is not the correct one, but from what I understand it is people who are considered lower class, I guess, don't have the provisions to live in a clean, comfortable space and it could be due to the upper class pushing them further down."		

Acknowledged environmental health disparities

The environmental health disparities most frequently mentioned were: air pollution, chemical exposure, homelessness, gentrification, wildfires and poor infrastructure (Table 4).

Table 4. Environmental health disparities in North Orange County as stated by participants.

Question	Themes
What forms of environmental issues do you see in your own community?	1. Air pollution and car traffic 2. Chemical and toxin exposure 3. Homelessness 4. Gentrification 5. Wildfires 6. Poor infrastructure

Most of the participants would list environmental issues that were in proximity to their personal experiences, and some only listing something that was visible and tangible—one participant only named 'homelessness' as an environmental issue. For another participant, their mother worked as a nail technician, and for them environmental health was linked to the well-being of their family:

> "My mom works in a nail salon and it's more prominent in my life. She is exposed to all these chemicals and it has been a rising issue but how else will she make ends meet with her limited English?"

An unintended experience between participants was that all participants had left North Orange County post-secondary school—either for college or for travel—and some stated how it affected their awareness to air pollution in North Orange County. A few participants stated how air quality affected their personal health as well as their family's health:

> "It does affect me and my family, especially when I was living in Westminster. And I have asthma so I definitely feel it, multiple members of my family have respiratory problems."

> "My brother had asthma. I'm sure this is also due to his smoking, but my dad died of lung cancer and a couple other members of my family have cancer. My mom has breathing issues and so does my grandma."

Discussing the relationship between environment and education

As the interview progressed, participants began to develop their definitions further and expand their ideas of what the 'environment' was for themselves. For discussing the relationship between environment and education, many began to connect environmental health disparities to their educational experiences—there was especially a focus on air quality or unsanitary conditions that would interference with academic and extracurricular activities (Table 5). Other perceived environmental influences on education were social factors such as peer influence and violence (Table 5).

Table 5. Questions and themes for "Section 3: Education" of interview.

Question	Theme	
How did the environment impact your education?	1. Air quality interfering with academics and extracurricular (i.e. wildfires would lead to school and sports cancelling, traffic smog from the freeway would cause students to be sick) 2. Unsanitary facilities, unsafe conditions 3. Peer influence which could uplift or contribute to loss of motivator 4. Violence (i.e. fights, drugs, police presence) leads to loss of focus	
	Answer	**Frequency (%)**
What pathway(s) were you considering after high school?	Work	16.7
	College	83.3
	Theme	
What are some factors that impacted the decision you made?	1. Supporting family 2. Becoming financially independent or financially stable 3. Educators promoting college 4. Leave Orange County 5. Lack of motivation and support from family	
	Answer	**Frequency (%)**
Would you say your environment/environmental health is better/worse now?	Better	50
	Neutral	50

One student recalls her experience in high school where annually school days were cancelled due to the Santa Ana wildfires, heavily affecting their school's curriculum and their own academic performance:

> "Our school was cancelled for five days in March 2016…our curriculum got pushed back and a lot of things got removed. It was hard for me, it was my first year of AP [testing] and I went into the test seeing stuff I hadn't seen before. The thing that most affected us was the wildfires and the pollution from the freeway…it impacted our extracurricular activities, a lot was cancelled and many students couldn't participate because of asthma or bronchitis."

For factors that influenced a participant's personal decision to pursue higher education or not ranged from being financial stable to leaving North Orange County (Table 5). For the participant who did not pursue post-secondary education, they stated their primary factors included their role in supporting family finances as well as a lack of guidance from family members:

> "Senior year I didn't have much motivation, ability or capacity—I think it was due to my upbringing. I wasn't really able to go off into the direction of going to college and doing good…Laos is very poor, so a lot of the times when [our parents] do come to America they don't have much to start with. My parents didn't go to school out here, they were in their twenties, they just went straight to working and maybe because of that I wasn't really influenced to go to college. I think that the influence we have around us is really important in determining the direction we decide to grow in, [*pause*] but of course, everyone is different."

These factors were also applicable for the majority of the participants; many expressed that their primary reason for pursuing higher education was ultimately to provide financial support for their families and one day achieve financial stability (Table 5). Two participants, one changing their college major for the possibility of being more financially stable and one choosing college for the chance at being financially independent, elaborate further on this:

> "Before I was thinking about things I like, then I thought about monetary value and being able to sustain myself and my family in the future, so I changed [my major] more towards STEM."

> "My freshman year some teachers were telling me that there were some colleges where if I went and got good grades there were actually scholarships and financial aid that would pay me to go to school. Coming from a low-income family I was like, 'This is money I can send home to my family or just extra money to have so I wouldn't have to depend on my family anymore.'"

The last question of the interview was more directed towards participants who no longer resided in North Orange County, which applied to all the undergraduate subjects. For those who currently did not reside in North Orange County due to school, they all experienced better environmental health, on the other hand, the participants who currently resided in North Orange County expressed neutral thoughts as they had not left the circumstances they were facing (Table 5).

DISCUSSION

Synthesizing the relationship between environmental racism and educational attainment for Southeast Asian youth offered insight into the psyche of the second generation and their forms of survival as well as points to lack of accessible environmental education within Orange County.

I found that for Vietnamese and Laotian youth in North Orange County, the lack of exposure to formal environmental education resulted in uncertain definitions of the term 'environment,' thus participants found difficulty in expanding on topics related to environmental health and environmental racism at first. In contrast to my hypothesis, environmental racism was not necessarily a vehicle for an individual's pursuit to higher education, however, subjects implied that by pursuing higher education they would have the ability to relocate out of North Orange County and thus no longer experience the inherent environmental racism they face. Participants expressed the desire to leave North Orange County into areas that were considered 'better', typically relating to areas that had less car traffic, less pollution, cleaner facilities, and overall better public health; and education was depicted as the vehicle that would lift these participants and their families out of such conditions. Though participants did not recognize the relationship of their environmental disparities to their educational attainment, they were able to link that higher educational attainment could lead to better environmental conditions. Broadly, this not only speaks to the lack of environmental education and environmental policy to protect these refugee communities, it may also indicate a cycle of resettlement ingrained into these communities' history and psyche.

Educational disparity amongst Laotian and Vietnamese groups linked to the foundation of an ethnic enclave

The studied group from North Orange County showed similar educational attainment trends to that of the Pew Research Center's Laotian and Vietnamese populations in the U.S. data, replicating this data within a microcosm (Lόpez et al. 2017a,b). Of the subject group, Laotian individuals were less likely to pursue higher education after high school, while all the Vietnamese individuals did pursue higher education after high school. Within Southeast Asian populations, there is a correlation between a strong community foundation and the success of the individual and their youth (Kula & Paik 2016; Yang 2004). With the large presence of a Vietnamese enclave—Little Saigon—but the nonexistence of a Laotian enclave in Orange County, the Laotian population are without a larger sense of 'place' or 'belonging.' Laotian people in Orange County are situated within a refugee enclave that has faced similar adversities but have slight cultural differences, similar but not the same. A lack of collectiveness can factor into how individuals in a community

build their values and goals (Jargowsky 2009); could the lack of collectivism be tied into the diasporic educational trends between Laotian and Vietnamese populations? One interviewee, a Laotian woman from Anaheim, expands upon this phenomenon. Her family's migration history is tied to her family's sense of community; where extended family or family friends were located would influence a secondary migration, causing her to move from Seattle, Washington, to North Orange County, California, and even Sacramento, California:

> "They were looking to find a sponsor in Washington, and thankfully we had some family there already, so the sponsor brought over my parents and my oldest sister, a year later I was born. We lived in Seattle, Washington for a good while, for me, about 11 years. We moved to Orange County when I was about 11 or 12 years old…then we moved to Sacramento. I don't know if you know this, but there is a large Laotian community out there, including Iu-Mien and Hmong people. My mom had some family friends, and so she felt comfortable moving to Sacramento and being there for a little while. Then my senior year I moved out to live with my older sister in Orange County."

For this individual, her family retreated Laos due to the Secret War, yet after their initial settlement they faced secondary migration, gravitating to places where there was a prominent sense of community. For the Southeast Asian American community, resettlement in United States was for survival, additionally survival also encapsulates a sense of belonging and familiarity with people of similar cultures and history. For the Laotian community, this could contribute to a constant uprooting and resettlement into areas with larger Laotian populations; additionally, this need for familiarity could explain the resettlement of Laotian populations in or around Vietnamese enclaves, as Vietnamese groups have similar cultural practices and community values. The Vietnamese American community—as well as their narratives—are dominant in the Southeast Asian discourse, and it is demonstrated with the establishment of their ethnic enclaves. The establishment and success of such enclaves can be attributed to their first 'elite' wave of refugee resettlement, which occurred prior to both Laotian and Cambodian groups (Rumbaut 2006). Vietnamese Americans have had established communities; thus, it is typically for Laotian communities to resettle into Vietnamese enclaves and not the other way around.

In contrast to Laotian, the Vietnamese individuals, all had stayed within North Orange County's boundaries. One of the four stated their family relocated once, moving from Long Beach—located in Los Angeles County—to Buena Park—located in North Orange County. The

other three Vietnamese individuals had either lived in one city since resettlement or moved to a neighboring city within North Orange County. For this population, their families were typically situated with close proximity to Little Saigon, Garden Grove. The community surrounding Little Saigon is rich in Vietnamese population, culture, and businesses, which ultimately leads to greater development for the Vietnamese community and their youth. Contextually this success and upward mobility for Vietnamese groups can be attributed to the 'elite' first-wave of refugees that settled in the United States, compared to the Laotian groups which mainly relied on sponsors and government aid (Kula & Paik 2016). The disparity between Laotian and Vietnamese educational attainment is tightly bound to their migration history; additionally, the establishment of ethnic enclaves, such as Little Saigon, can contribute to the further success of one ethnic group compared to the other.

Environmental Health for Southeast Asians in North Orange County

Each interviewee had individualized definitions of 'environment' and thus had different ways in which they navigated the rest of the conversation. It became evident that for many they had not thought about these relationships between their community, environment, and their environmental health prior to the interview. When confronted with the term 'environmental racism,' many had heard of it in passing, and some had had exposure to the ideas that surround it. Those who were able to provide some definition of environmental racism were typically those who had their undergraduate experience in the San Francisco Bay Area. This exposure to environmental education in correlation with an the individual's relocation into the Bay Area may allude to a lack of environmental education in Orange County on both the secondary school level and post-secondary level. When discussing environmental health disparities, it was evident that subjects did experience different forms of environmental racism—mainly with air quality and exposure to chemicals—but despite experiencing these environmental inequities, they had not seen it as environmental racism, as they had not even heard the term prior. Environmental racism was a lived experience in their youth, yet was brushed aside to be a form of normalcy that these communities had to live with.

Environmental health disparities in North Orange County

When asked to name environmental health disparities, an individual's response was typically in proximity to their lived experience, whether it be in their daily routine, a family member's occupation, or a personal health condition—working individuals would mention population density and homelessness, those with family in blue-collar jobs would mention exposure to chemicals, and those with asthma would mention air quality. I was more surprised at the frequency in which population density and homelessness were named as environmental health disparities, but I believe this could be due to the visibility of these issues that make it more relatable for individuals. A large portion of environmentalism is fueled by the individual ability to empathize with an issue, sometimes relying on tangible items; these tangible—and intangible—issues can be classified as stressors that influence individual proneness to accepting environmental hazards (Gee & Payne-Sturges 2004). When people are faced with addressing environmental issues that affect their own community, it can become unknown territory for them; If where a person grew up in all their life is their perceived 'normal,' what issues could there be?

What made Orange County an interesting study site was the prominent split between North and South in its demographics, population, wealth differences, and even politics. Orange County's history evolved from the white suburbia movement out of Los Angeles, now existing as a county with predominantly immigrant populations—the majority of these immigrant populations centralized in North Orange County (Kling et al. 1995; Pulido 2000). These immigrant communities are the ones that shoulder the most environmental health inequities in Orange County, having notably higher indexes of environmental risks and low household income—for example, this can be seen in Santa Ana where these communities experience annual wildfires that are intensified due to the 'Santa Ana winds' and as well as heightened lead contamination in their pipes (LeBrón et al. 2019; Waheed et al. 2014). When Southeast Asian refugee communities were placed into these historically disadvantaged immigrant neighborhoods, they too would also begin to shoulder the effects of environmental racism that communities before them had been experiencing (Rawlings et al. 2007). Several different environmental risks are referenced to by participants, and though many did believe that the environment affect themselves and their families, it was only after vocalizing their experiences that they began to see clear connections.

One participant, a Vietnamese woman from Stanton, discusses the stark nature of recognizing the degree of these disparities once she began college in South Orange County, away from family:

> "With my mom, she has these random health issues that come up that she tells me about and there seems to be no prominent reason for it…this one time she was like, 'I coughed up blood,' and I asked if there was certain reason like, 'Were you out, did you eat something?' and she was like, 'No, I haven't been doing anything.' Things like that make me wonder, is it the nail salon—maybe the chemicals—but I don't really know and again it's something we can't really trace easily and it makes it harder to deal with the problem…I feel like before [my environment] was a bigger issue but now I have the privileges of navigating it, like how I have a car and I can just leave [to Irvine] whereas my family can't really do that."

Most of the participants' families had either resettled or experiences a secondary migration in North Orange County, for many this is a permanent action. However, all participants had experienced life outside of North Orange County—for some it may have been to the neighboring South Orange County and for others in completely different states—yet, it was only after leaving had they begun to see the environmental inequalities that existed in their communities. One interviewee, a Vietnamese woman from Santa Ana expands on her experience when deciding to leave Orange County:

> "The first time I stepped off the plane it was like, 'Woah, the air is really clean [in San Francisco],' it's so different than Santa Ana. It was easier to breathe and I was like, I want to be here. It felt safer."

For her, it felt good to be in San Francisco, to be able to breathe. Once exposed to healthier conditions, youth begin to recognize that their experiences, their 'normalcy,' was actually riddled with environmental injustices. Southeast Asian youth—mainly the second and third generation—are shouldered with intergenerational trauma, mental health issues, stress and shame as produced from their family's refugee histories (Han 2004; Perez et al. 2019; Rumbaut 1985; Saraiya et al. 2019; Simich & Andermann 2014). With all this to hold in order ensure the survival of their family unit—as well as themselves—it was clear that environmental health was not a priority for them as youth. How could they take on yet another stressor in their lives? It was easier—almost second nature—to accept these conditions as they existed and adapt to navigating them. This is a nature

that many second generation Southeast Asians exhibit—constantly learning, adapting, and surviving their conditions, which include environmental injustices—and I argue that it is an inherently learned nature from the previous generation's refugee resettlement. Second generation Southeast Asian Americans—and possibly even the third generation—are caught in yet another cycle of survival, but instead of escaping war, they are trying to breathe.

Pursuit of education as a form of escape, reshaped form of resettlement for survival

Similar to when defining environment, the relationship between environment and education materialized in multiple forms. For some, it was more social—support systems (i.e. peers, family, teachers) or violence (i.e. gangs, guns, police presence)—and for others, it was more physical—examples included poor air quality or unsafe school infrastructures. Individual's described how their academic performance were affected by numerous factors, all amounting to plethora of stressors that affected how well they would be able to focus and succeed in their academic environment (Pastor et al. 2004).

When asked about what factors influenced their decision post-secondary school, participants frequently answered within the realm of supporting their families and a desire to be somewhere 'better.' Since the majority of the subject pool were undergraduate students, I mainly had the chance to expand upon relationships to higher education. Education was viewed to be a vehicle that would drive these students, and their families, out of poverty and low-income status. However, as youth, they lacked guidance and support from their families on how to navigate any pursuit post-secondary school, as secondary school was typically the highest educational attainment their families had completed. Thus, as youth there was the pressure to uplift their family out of generations of poverty and make their family's escape from war—their trauma—worth it, all while being the 'first' in many aspects (Kula & Paik 2016; Perez et al. 2019). Thus, Southeast Asian youth, more particularly the second-generation, were placed at the cusp of holding their cultural values, advancing the generational success of their families, alleviating pain from war trauma—both by providing mental support as well as financial relief for their families—all while navigating realities their parents had not experienced prior—such as higher education—and in some cases, navigating environmental health injustices.

By contextualizing the web work of factors and stressors that Southeast Asian youth are held responsible to navigate, it is understandable that the relationship between environmental injustices and education was not at the forefront of what youth considered when pursuing higher education. Instead, they prioritized other survival necessities, such as financial stability. However, if higher education is sized to be the driver that would enable these individuals to physically uproot themselves, and their families, out of North Orange County—essentially leaving the environmental health disparities that we had discussed throughout the interview—then surely there is an underlying relationship between environment health and their education. Rather instead of developing dialogue to vocalize the relationship between environment and education as youth, they had instead existed within environmental racism and perceived it as normality. Many had not developed what that relationship meant personally until after secondary school—either as a working adult or college student—and in some cases, the connection between the two were not made until prompted by a course or workshop during college. Southeast Asian youth are more likely to normalize their experience with environmental risks that impacted their academic performance before acquiring the means to defining their lived experiences with environmental racism.

Limitations and future directions

Most of this study's limitations resulted from preliminary items, such as lack of disaggregated data or published research on similar topics, and the short period for data collection. When diving into preliminary research and literature review, there was a lack of studies that specifically pertained to Southeast Asian American communities and environmental health, and even less so research for Orange County. Finding demographic data for Southeast Asians—especially for groups outside of Vietnamese—proved to be near impossible. For example, there are limitations with using U.S. Census data since 'Laotian' as a group is a fill in and not a check-box like 'Vietnamese' (Hoeffel et al. 2012). My choice in focusing on Vietnamese and Laotian for my study was done due to the limitations in available data. During the study, the lack of access to recruiting subjects, especially Laotian subjects, led to an ethnically unbalanced interviewed cohort, however this could also be representative of the population difference within Orange County.

Additionally, with the COVID-19 global pandemic arising from early February and escalating in March, it was not possible to conduct the intended number of interviews.

For future directions, this study will serve as a preliminary research to one that could be more intricate, have a larger sampling size, a more diverse subject pool, and address questions within this study's discussion. A study like this could contribute towards pushing for better disaggregated data on items such as government documents—i.e. US. Census—as this would supplement developing public policy that would better protect vulnerable communities. Additionally, this study addresses the need for environmental education exposure, especially in communities of color, refugee communities, and other marginalized communities that shoulder environmental risks.

Conclusion

The relationship between environmental racism and educational attainment for Southeast Asian youth in North Orange County is filled with nuances such as intergenerational trauma, a history refugee resettlement, public health, financial stability and survival. For this study group, environmental racism was less likely to be defined, but rather realized as an understood lived phenomenon. Subjects used their personal proximities to better grasp environmental injustices, demonstrated when participants expand on environmental conditions that affected their personal health, family, or occupations. For Southeast Asian youth in North Orange County particularly, their educational trajectory was tied to the idea of 'leaving'—leaving their physical areas, parents, and perhaps fleeing from something larger than them—into a something that felt more secure and safe. The flight into higher education could ultimately enable youth to have the ability to re-root and resettle into areas that do not inhabit the environmental adversities they grew up with, such as poor air quality.

At first, youth did not recognize that environmental racism had played a role in their post-secondary path pursuits, but after discussing these concepts around environment, individuals were perceptive to their personal experiences. The foundation of these refugee communities is intertwined with the psyche to survive, yet what survival looked like for the previous generations is very different from the current generation. Southeast Asian communities have adapted to being in survival mode, to continue to fight, but this fight-or-flight spirit has become the new norm for

their children and generations after. Communities cannot continuously be in survival mode, they need stability, they need just and equitable living conditions to thrive and exist. Education may be one vehicle to move these communities into more stable conditions where secondary resettlement and displacement will no longer be as frequent, but until then, their youth will continue to be entrapped in a cycle of survival and existing in America.

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APPENDIX A: Interview Questions

<table>
<tr><td>Section 1: Background</td><td>1. Please introduce yourself (age, gender, ethnic background) and tell me a little aboutt your educational background and occupation.
2. What is the migration history of your family prior to coming to Orange County?</td></tr>
<tr><td>Section 2: Environmental Health</td><td>1. How would you describe your community in OC?
2. How do you define “environment”?
    1. Have you heard of the term “environmental racism” before?
    2. If yes, how would you define it?
    Defining ‘environmental racism’:
    Environmental racism refers to any policy, practice, or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups, or communities based on race of color. (Bullard 2001)

3. What are some forms of environmental issues you see in your community?
4. Does the environment around you affect you?
5. On a scale of 1-10--one being not affected and 10 being heavily affected--how would you rank the impact of the environment (as we defined it before) to your personal growth?
6. How do you view your city/community environmental health to other areas in Orange County?</td></tr>
<tr><td>Section 3: Education</td><td>1. How would you describe the primary and secondary school facilities you attended?
2. How did the environment impact your education?
3. What pathway(s) were you considering after high school?
4. What are some factors that impacted the decision you made?
5. Would you say your environment/environmental health is better/worse now?</td></tr>
<tr><td>Section 4: Closing</td><td>1. After all we have discussed, how do you define the term ‘environment’ now?
2. Are there any final thoughts you would like to share with me?
3. Is there a question you would have liked me to ask that I didn’t?
4. Any questions for me?</td></tr>
</table>