

Service Provision in the Slums: The Case of La Perla in San Juan, Puerto Rico

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Abstract

The purpose of this thesis is to study the basic services and infrastructure available to residents of the informal settlement of La Perla in San Juan, Puerto Rico. This thesis researched the availability of services, the acquisition and quality of these services and who provided them. This research concurrently explores the governance structures that emerged as a result of marginalization, the absence of government involvement and the endurance of La Perla for over a century. The research design consisted of reviewing background documents, photographing the study site, and interviewing both residents and local government officials. Seven public services were selected for study within La Perla: electricity, water, garbage collection, public transportation, education, fire and rescue, and safety and security. The findings show La Perla challenges the perception of informal settlements as places that lack access to public services and infrastructure with a mix of formality and informality in its built form and availability of the services studied in this thesis.

El objetivo de esta tesis es el estudio de los servicios básicos e infraestructura disponible a los residentes de la comunidad informal de La Perla en San Juan, Puerto Rico. Esta tesis analizó los servicios, la adquisición y calidad de los mismos y sus proveedores. La tesis, de forma concurrente, explora cuales estructuras gubernamentales y que necesidades emergen como resultado de la ausencia de servicios gubernamentales y la perpetuidad de La Perla como comunidad marginada por más de un siglo. El estudio consistió en revisar documentos antecedentes, fotografiar el sitio de estudio, y entrevistar residentes y funcionarios del gobierno local. Siete servicios públicos fueron seleccionados para estudiar dentro de La Perla: electricidad, agua, colección de basura, transportación pública, educación, fuego y rescate, y seguridad y protección. Los hallazgos muestran que La Perla desafía la percepción de las comunidades informales como lugares que carecen de acceso a los servicios públicos y la infraestructura con una mezcla de formalidad y la informalidad en su forma construida y la disponibilidad de los servicios estudiados en esta tesis.

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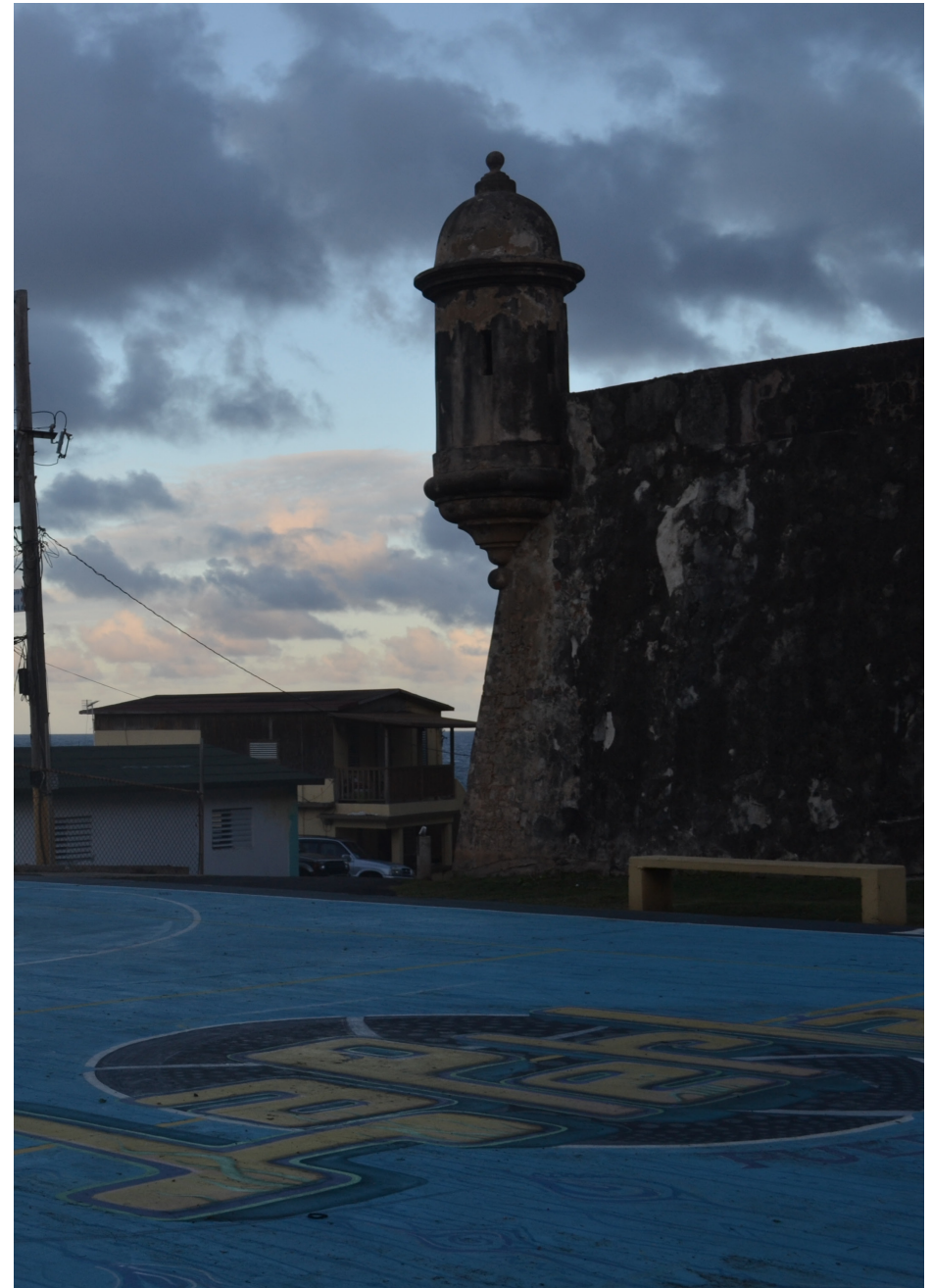
I. Introduction

As urbanization rates across the developing world increase, urban slums and informal settlements expand in order to absorb the influx of new residents; by 2030, the number of people residing in slums worldwide could double to 2 billion (UN-HABITAT, 2003). Slum dwellers live under squalid conditions: inadequate housing, little infrastructure, poor sanitation and a lack of access to basic public services such as water, sewage and garbage collection. Despite these circumstances, slums continue to grow, thrive and survive for generations. Though by no means a recent phenomenon, their increasing proliferation is causing changes in the fields of planning, development and governance in favor of slum upgrading and policies that benefit slum dwellers.

The purpose of this thesis is to study the basic services and infrastructure available to residents of the informal settlement of La Perla in San Juan, Puerto Rico. The thesis explores the conditions in La Perla through studying the availability of services, the acquisition and quality of these services and who provides them. It concurrently explores the governance structures that have emerged as a result of decades of marginalization and the absence of government involvement. As little research and academic information on La Perla exists, this study greatly expands the cache of knowledge on this settlement, hopefully informing public policy and addressing the needs of residents not only of La Perla, but residents in informal settlements across Puerto Rico and the developing world.

This thesis addresses the specific questions of what basic services and infrastructure are available to the residents of La Perla; the quality of these services; what group or entity, be it public, private or a non-governmental organization provides these services; and what forms of informal governance have emerged. The answers to these questions seek to further comprehend La Perla's endurance as an informal settlement for over a century.

To answer the questions, several methods were employed. These included reviewing previous writing on service provision and governance in slums, researching the history of La Perla and, finally, interviewing residents and Puerto Rican government officials. The interviews were conducted in January 2015 and collected first-hand information on the levels of and access to service provision.



La Perla basketball court at the foot of 18th century Spanish fortifications La Perla.
Source: Author

II. Literature Review

A number of researchers have written on slum dwellers' access to basic urban services. The following examples in Mexico, Nairobi, Jakarta and Delhi demonstrate ways in which slum dwellers obtain basic services and infrastructure when there is a gap in service provision and the role that tenure security and informal governance have in supporting access. The example of Medellín shows how governments can lead efforts to provide and upgrade service provision. Slums are characterized by poor shelter, low service provision and lack of tenure security ("Sustainable slum upgrading", 2012). Residents of slums often cannot gain formal access to infrastructure, education, jobs, credit and long-term certainty of occupancy (Lang & Winayanti, 2004). They lack the ability to obtain any or adequate basic infrastructure and services due to the tenuous legality of their settlements.

Slum dwellers often adapt to their living conditions and are efficient and flexible in their use of intermittent services ("Sustainable slum upgrading", 2012), and many settlements find their own means to secure urban services. Researchers writing on the topic of service provision agree that tenure security affects the level of services available, provided, or attainable. Provision of basic services to all citizens may be considered to be a government's responsibility, but often the government does not have the capacity or willingness to do so.

Where a gap in service provision exists, in which the public sector is unable or unwilling to provide services and the private sector has no incentive to invest in them, community action for self-provision is a "viable option" (Lall et al., 2002: 22). Self-provision of services does not provide formal, adequate, equitable long-term service access, but is a means for a settlement and its residents to survive (Lang & Winayanti, 2004) by obtaining services such as water and solid waste collection.

In large cities across Mexico (Medina, 2005), informal solid waste collectors have become a valuable resource for residents of areas, particularly slums, where no formal municipal garbage collection service exists. A number of factors contribute to this gap in service provision including municipal agencies lacking the management capacity or resources to meet growing demand, a belief by municipal agencies that slum dwellers should not have priority access, waste management collection equipment unable to operate within slums due

to unpaved or narrow streets, and residents lacking the resources and political contact necessary for improved services.

City residents in Mexico do not pay for garbage collection directly as it is funded through municipal budget allocations; since slum residents often do not pay property taxes that go towards the municipality, some authorities argue that these slums should have lowest priority in provision of this service (ibid., 391). For a fee ranging from \$0.05-0.50, depending on the city, informal garbage collectors known as *carretoneros* follow daily routes collecting solid waste in areas that are not serviced by the municipality. In contrast to the large garbage trucks that cannot navigate inside the slums, the *carretoneros* use horse- and donkey-drawn carts, push carts and pick-up trucks (ibid., 392).

Government reaction to these informal garbage collectors varies between municipalities. In Nuevo Laredo and Nezahualcóytl city, authorities largely ignore their activities. In Monterrey, the number of *carretoneros* is so great that the authorities began licensing and formalizing them; they are similarly licensed in Tultitlán as well as in Tultepec (Medina 2005).

The Role of Tenure Security

In Mexico there are examples of the government formalizing informal methods of addressing gaps in service provision, on the other hand, the existence of informal service provision can also prevent the government from improving public services, as is the case in Nairobi, Kenya (Huchzermeyer, 2008). Lack of strong local governance in Kenya has precluded adequate infrastructure and service availability across cities, which has allowed for the informal "commercialization" of an inadequate provision of water, shelter, garbage collection and sanitation.

Huchzermeyer (2008) describes how slum dwellers in the Kibera-Soweto settlement in Nairobi have to pay for inadequate services as the government does not increase service provision and simultaneously relies on nongovernmental organizations and donors to marginally improve access. Having to buy water from water vendors is not perceived as negative by these residents as it allows them access to a basic need and fosters a sense of mutual support. Huchzermeyer (2008) argues that this mutual support, alongside a deeper

network of commercial interests and the corruption that protects these networks, leads to the survival and perpetuation of Nairobi's slums (ibid., 32).

The government in Nairobi lacks any incentive to improve services as it would remove one of the few forms of economic activities in the slum (e.g., garbage collection, selling water and collecting rent). Because the vast majority of residents are tenants of illegal structures, initiatives to improve access to basic infrastructure and services would lead to displacement of the original residents into newly forming slums (ibid., 25).

The lack of tenure security in the Kibera-Soweto settlement affects slum residents' willingness and ability to make up for or complement inadequate public and private service provision through community action and self-provision. Security of tenure plays a crucial role in the willingness of slum dwellers to make investments in their homes and community and participate in access to urban services (Lall et al., 2002; Banerji, 2005; Lang & Winayanti, 2004).

Lall et al. (2002) argue that tenure security has a significant impact on residents' willingness and ability to participate in the provision of basic services even when communities are culturally and economically diverse. Tenure status contributes to greater participation and investment because gains in improvement of services can be capitalized in the value of the home (Hoff and Sen, 2000), the anticipated benefits from improved services will be distributed over a long period of time, and greater social interaction and capital come from longer periods of residence (ibid., 3). The perception of tenure security that generates community investments does not depend solely on full-legal titles (Angel, 1983; Gilbert & Ward, 1985; Silas, 1990; Garr, 1996; Payne 1997) but on the perception of security of tenure, whether it was achieved *de jure* (by law) or *de facto* (in practice) (Leaf, 1994 in Lang & Winayanti, 2004: 43).

In the case of Jakarta, Indonesia, nongovernmental organizations (NGOs) have played a crucial role in developing a perception of secure tenure within the community, which has led to increased community investment in infrastructure and housing in the informal settlement of Kampung Penas Tanggul (Lang & Winayanti, 2004). The illegal status of the Kampung barred its residents from accessing local government functions, services and infrastructure and forced

them to live under the constant threat of demolition. Through the support of an outside NGO that educated the community in mobilizing to protest eviction and advocate for a better environment, the government granted Kampung official status as a formal neighborhood association (ibid., 61). This allowed the community access to government programs such as micro-financing. With perception of secure tenure, the community began gradually investing in housing improvement by installing private toilets, infrastructure and constructing a small mosque (Lang & Winayanti, 2004).

NGOs played an additional role in this community by constructing garbage collection areas, improved pavements, and public toilets that are collectively managed (Lang & Winayanti, 2004: 60). The case of Kampung shows the collaboration between the community, NGO and the government is crucial in the provision of services, as is the participation of residents (Lang & Winayanti, 2004).

A similar situation arose in Delhi, India between the resources and services available to formalized settlements and those available to illegal settlements. Banerji (2005) compared two types of settlements in Delhi: slums in which dwellers illegally occupy or squat on public or private lands and resettlement colonies made up of households resettled by the government due to environmental concerns or public interest.

Due to their legal recognition, the resettlement colonies had better access to better services and government-provided basic infrastructure (ibid., 5). These resettlement colonies all have access to electricity, and while there is near-complete access to electricity in slums as well, the provision is very different. Since slums are not formally recognized, they do not have formal electrical connections. Usually, a middleman with a legal connection will charge these households a high price to illegally connect to this legal connection, but this service is irregular at best (ibid., 7). Additionally highlighting the importance of tenure security, residents in resettlement colonies make investments in housing, health, and education. Furthermore, they have resided in Delhi longer, and have better access to employment and health facilities as well as higher income (Banerji, 2005: 8).

The Role of Informal Governance and Political Contact

Slum leaders in Delhi often play central roles as intermediaries between residents and bureaucrats to obtain delivery of basic services such as water and electricity. Institutions of informal governance have emerged in these slums, ranging from traditional village structures to new leadership structures, as a means through which residents gain access to formal government services (Jha et al., 2007).

Tracing the role of informal slum leaders in four settlements in Delhi to understand how collective action problems in the slums are addressed, Jha et al. (2007) found great differences in abilities to gain access to services. In one settlement, the elected leader had close social contact with members of the Congress and the electricity board. Through contributions given by residents of the settlement, the leader acted as the intermediary between the slum dwellers and electricity officials in order to preserve the settlement's electricity supply. However, the settlement's electricity was turned off and access became scarce following elections that voted the opposing political party into office. A leader having close political ties does not resolve long-term service provision problems (Jha et al., 2007; Edelman & Mitra, 2006).

Edelman and Mitra (2006) studied the impact of slum dwellers' political contact with their access to basic services in India. They evaluated 'political contact' in terms of the number of visits from a political leader or political party worker to a community as well as the visits from residents or a community leader to the party offices (ibid., 27). These contacts played a role in both reducing risks related to land encroachment and also in aiding in access to basic services—two factors the authors pointed to as vital for survival. The authors found a positive relationship between political contact and access to latrines, sewage, drainage and garbage disposal as well as obtaining voter's cards and ration cards, which allow them to benefit from public distribution of goods.

In return for support during elections, political parties spend directly from their election funds to provide water connections or tube-wells to slum dwellers (Edelman & Mitra, 2006: 26). Though political contact can provide both state recognition and access to some basic services, additional service provision such as sanitation or an enhanced water supply are not guaranteed because of shortage of funds or even political abandonment (ibid., 26). Furthermore, sole reliance on political contacts can hinder the long-term inter-

ests of slum households and social mobility because it can prevent the development of social capital that is effective in generating improved outcomes (ibid., 38).

Settlements that faced greater risk of demolition by the government and lacked electricity and sanitation had no community leadership (Jha et al. 2007: 235). It was harder to develop leadership structures within these as well as in the newest slums (ibid., 236), further pointing to the importance of the role of political contact and perceived tenure security as crucial for the inclination of the residents to make investments in a community. The duration of stay within a settlement is an important determinant of developing access to political contact as there is a higher probability of flow of information and bargaining power (Edelman & Mitra, 2006: 26).

Since political support and contact depend on the size and density of the slum (Edelman & Mitra, 2006: 32), unlike in many cities throughout India, slum dwellers in Delhi are politically significant due to their sheer number, and elected politicians often interact with slum dwellers as they provide politicians with votes and a boost of attendance at political rallies (Jha et al., 2007: 238) allowing the urban poor more voice in pushing for improvements in their environments.

The Role of Government-Led Efforts

In contrast to piecemeal and sporadic efforts at providing services to informal settlements, many countries in Latin America have undertaken massive slum-upgrading policies. In Medellin, the city government undertook significant improvement of all public services delivered by the local government during the mid-2000s, guaranteeing near-universal access to relatively high quality energy, water, sewage and gas services even in slums and marginalized communities (Guerrero, 2011).

During the 1980s and 1990s, drug cartels took control of Medellin's slums, causing the government to retreat from these areas and making the city one of the most violent in the world (Guerrero, 2011: 2). In conjunction with the subsequent defeat of the drug cartels and significant reduction in the murder rate, the city government instituted the expansion of public services in order to increase the city's cohesion (ibid., 2) and governmental presence in marginalized communities. Medellin not only expanded basic public services but also

improved the management of schools, hospitals and the police. The majority of this service expansion occurred in slums, notably expanding public transportation for residents through innovative use of cable cars to reach hilly areas, decentralizing services in neighborhoods to better reach residents in providing social and psychological services and supporting and building world class schools, public libraries and parks (ibid., 3).

The expansion of formal services is also associated with increases in costs to residents, as they now have to bear the burden of paying for them. In Medellin, the expansion of services was coupled with stricter enforcement: cutting off access if residents do not pay their bills or attempt to access the service illegally (Guerrero, 2011: 3). However, along with Colombia's system of cross-subsidized tariffs according to income level, Medellin introduced daily prepaid energy and water cards to benefit residents of informal settlements who often work in the informal sector for irregular wages and cannot bear the burden of bimonthly service bills (ibid., 3). The government-led effort of expanding infrastructure and service provision in Medellin guaranteed fair access to public goods and services to all city residents, particularly slum dwellers.

Whereas the situation in Delhi and India is not analogous to that of residents in informal settlements everywhere, neither is this the case for Jakarta, Nairobi, Mexico or Medellin. The study of service provision in these slums illustrates how communities can and do gain access to inadequate basic services when the government is unwilling or unable to provide any or adequate services, the formal private sector lacks incentive to invest in providing services or how the government can lead efforts to improve services.

III. Research Design

Given the literature on the subject of service provision in slums, in order to study how residents of La Perla gain access to public services this research was divided into four tasks: review background documents, photograph the site, interview residents of La Perla and interview government officials with knowledge of service provision in this community. Seven public services were selected for study: electricity, water, garbage collection, public transportation, education, fire and rescue, and safety and security. Through this research, I have compiled information on the public services available to the residents of La Perla, the quality of the services, how residents gain access to these, who provides them, and the role of tenure security, governance and government-led efforts in securing access.

Location Description

La Perla is an informal settlement nestled by the boundaries of Old San Juan, the historic colonial city of San Juan, Puerto Rico's capital and largest city. The 1983 UNESCO World Heritage Site designation of Old San Juan and its fortifications does not include La Perla, officially described as "a non-historic low income residential development that originated with squatters," despite its establishment before the turn of the 20th century. Figures 1 and 2 illustrate the location of La Perla adjacent to Old San Juan on the San Juan Islet, as well as La Perla's streets, Old San Juan and surrounding structures.

Review Background Documents

No one document details a history of La Perla that includes its formation, growth, infrastructure improvements and governmental and nongovernmental interventions. Background information had to be gathered by through a number of documents including archival photography, writings on the history of San Juan, contemporary newspaper articles and academic writing. The academic articles, while mainly focused on architecture, provided background, context and knowledge on changes throughout La Perla's existence.

These sources shed light on basic service provision to the community and served as a backdrop from which to determine what information was missing or simply didn't exist and a way to guide the rest of the research tasks.



Figure 1. Location of the San Juan Islet with La Perla marked, San Juan, Puerto Rico.

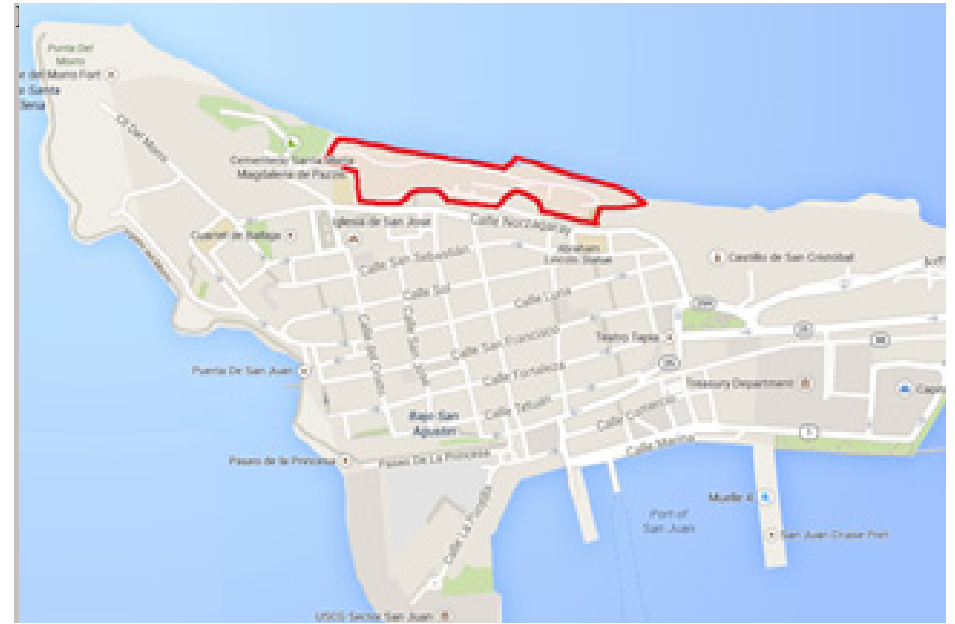


Figure 2. Map of Old San Juan with La Perla outlined in red.

Photograph the Site

An indispensable part of the research was walking through and photographing La Perla in January 2015. Gathering photographs was important so as to properly document the urban form, streetscape, infrastructure and services. Photographs on access points to the community, roads and electric, water and sewage infrastructure document, understand and assess the services and provision to the community. No photographs of the interviewed residents were taken in order to maintain the anonymity of the participants.

Resident Interviews

Interviews with residents of La Perla were the essential method for documenting and understanding their access to, provision, and adequacy of basic public goods and services as no such data had previously been gathered. Speaking with members of the community was the most valuable and enriching aspect of this research, both personally and academically. Without the

information provided by these residents, the evidence gathered through the accompanying tasks would have remained incomplete.

Sixteen residents were interviewed and a separate interview was conducted with La Perla's community leader. The questions asked addressed the level and quality of the basic services that are accessible to the residents of La Perla, what entity provides these services, the forms of informal governance within the settlement, and how these three things have changed over time. A copy of the resident interview questions is provided in Appendix A.

While both Spanish and English are spoken across Puerto Rico, the interviews were conducted in Spanish to minimize confusion for both the interviewer and interviewee and to foster conversation enabling the residents to speak more comfortably and freely. This is effectively what occurred, as many residents engaged in lively conversation that resulted in more valuable qualitative data. No translator was needed as I speak fluent Spanish and, being from San Juan, understand the cultural, political and social nuances that inhabit daily Puerto Rican life, affording a richer perspective to interviews and research.

The subject population for these interviews was adult residents aged 18 and over, focusing on residents between the ages of 18 and 64, though a small percentage of residents over 65 were included in the interview process to cast a wider net for understanding the level of service provision and how it has changed.

The resident interviews took place over the course of two days, January 14, 2015 during the late afternoon to early evening and on January 15, 2015 during the early afternoon. The second day was during the afternoon before the start of the Fiestas de la Calle San Sebastián, a four-day long cultural festival that is celebrated on the streets of Old San Juan. The streets of the community were abuzz with residents setting up and preparing for these celebrations.

The community of La Perla is small, with a population of about 300¹ and is just 0.03 square miles and consists of three main roads so assessing the entirety

of the community can be done in a relatively short time. Interviewees were selected at random. I approached every second person seen on the streets in order to account for any personal or research biases or concentration in one area. After obtaining verbal consent, each interview lasted from three to ten minutes, depending on the responses. The participation was voluntary, and

Officials Interviews

In addition to the resident interviews, interviews with public officials supplemented and provided further particulars on service provision in La Perla. The information collected through these interviews was significant not only as it does not exist or is not readily available in the public realm but served to contrast the evidence collected from the residents.

The ten officials interviewed from agencies (see Appendix A) have knowledge of or their agencies provide services to La Perla and provided a depth of knowledge on government involvement in the community, supplemented through additional background document research on the evolution and timeline of this involvement and services provided. The questions asked covered what services the government provides and their quality, who provides the basic services they do not provide, if any, and how government provision and interventions in La Perla has changed over time. A copy of the officials' interview questions is provided in the Appendix A.

The proposal for this research was reviewed by Columbia University's Institutional Review Board (IRB) and approved on December 12, 2014.

¹ Interview with Mr. Castillo, Department of Housing, 2015.

IV. Background

Regarded as “the quintessential slum of Puerto Rico,” La Perla is on a narrow piece of sloping land that sits just outside Old San Juan’s limits between the colonial city fortifications and the ocean, seen in Figure 3 (Dinzey-Flores, 2008: 42). The name “La Perla” comes from the small fortress that was part of the city’s fortifications, known as ‘Fortín La Perla’ that was once located there, but no longer exists, its location covered by houses (Marvel, 2008: 144; Urban, 2015: 4).

Stretching along 600 meters, La Perla is just 0.03 square miles and has three major roads and several alleys and stepped walkways. La Perla is bounded by the old city walls to the south, the Atlantic Ocean to the north, the Santa María Magdalena de Pazzis Cemetery to the east and the San Cristobal Fortress to the west (Figure 4).² La Perla has a privileged location, with its land widely considered to be the most valuable in San Juan. Due to its beachfront location next to the picturesque buildings of Old San Juan, La Perla offers unobstructed ocean views and is the remaining available grounds for new development in such proximity to the historic city.



Figure 3. An aerial view of La Perla with Old San Juan in the background.



Figure 4. La Perla’s boundaries.

Colonial city walls to the south, the Atlantic Ocean to the north, the Santa María Magdalena de Pazzis Cemetery to the east and the San Cristobal Fortress to the west.

The wall fortifications have divided La Perla’s residents physically, mentally, socially and economically from the rest of San Juan since its formation in the late 1800s. This separation has led to a history of marginalization that, despite a number of governmental infrastructure improvements alongside involvement of nongovernmental entities, has marred La Perla’s image. It has sustained a reputation for decades as a dangerous place of rampant crime, drug use and extreme poverty; a place not to be entered into by the general population. Tourist guides and guidebooks recommend avoiding the area due to safety concerns (Caldieron, 2012; 2013). So strong is the stigma against La Perla within Puerto Rico, that its residents cite having to use an address outside La Perla in job applications to avoid discrimination, the case both in the 1970s and today (Marvel, 2008; “Forbidden Puerto Rico” 2014).

In an 1848 census by the Spanish government, 18 small shacks were located in what is now La Perla (Marvel, 2008: 145). Today, La Perla is home to about 150 permanent residents and a total of 300 residents counting the floating pop-

² The colonial city walls, Cemetery and Fortress are historic structures contributing to the Old San Juan Historic District, http://www.nps.gov/nr/feature/weekly_features/2012/PR_12000465.pdf, US National Park Service National Register of Historic Places Registration Form, June 15, 2012

ulation, a significant decrease from its peak of 4,450 residents in 1940 (Marvel, 2008: 145).³ Recent data reflects a median age of 29.4 years, a median household income of \$3,375 and an unemployment rate of 41.4%, though as is the case in many informal settlements where most employment occurs in the informal sector, this number may not reflect the actual rate of employment.⁴ The dramatic decrease in population is partially the result of a decline in the number of households, a decline in the number of people per household and overall improvements of the living conditions from the early days of extreme overcrowding and slum lordism, due to some infrastructure improvements and demolitions (Marvel, 2008; Urban, 2015).

History of San Juan

Though the Spanish claimed the island of Puerto Rico on Christopher Columbus' second voyage in 1493, they did not establish a permanent settlement there until 1509. In 1521, settlers relocated to the islet in the bay that became the location of the city of San Juan, made attractive due to its large natural port ("San Juan, Puerto Rico", 718). Fortifications of the city began in 1533 after attacks by foreign nations began (Vivas Maldonado, 1962: 91). After the city was destroyed in 1625 by a fire set by the Dutch, the city was re-fortified and the walls that are still standing today were constructed along the perimeter ("San Juan, Puerto Rico", 718).

During the mid-to-late 17th century, the population of San Juan grew as sugar became a driving force in world trade. Military construction attracted business as well as residents, including free, slave and penal workers ("San Juan, Puerto Rico", 718). As the city's population and boundaries expanded through the 1800s, military and public policies forced the relocation of working-class neighborhoods to outside the city walls.

History of La Perla

Spanish colonial laws established that the cemetery, slaughterhouse and humble dwellings be located outside city limits. In the case of San Juan, the

location selected was the area that is now La Perla (Caldieron, 2013: 6). This slum began to form in the late 19th century as freed slaves and former farm workers who could not afford to live within the city boundaries settled on this public land.

Though there were 18 documented shacks constructed around the slaughterhouse in 1848, the growth in La Perla's population began at the turn of the 19th century. Urbanization rates in Puerto Rico began to increase after the United States acquired the island from Spain as a result of the Spanish-American War of 1898. As people moved to urban areas in search of better economic conditions due to the weakening sugar industry, the "modernization of agriculture," and the Great Depression, the number of residents in slums grew in San Juan, including in La Perla, which reached its peak population of 4,450 in 1940 (Urban, 2015: 3). La Perla became a place for the urban poor to reside as a way to access a range of services in adjacent Old San Juan. Figure 5 provides a look at the population trends since 1937 and Appendix B provides a more in-depth chart.

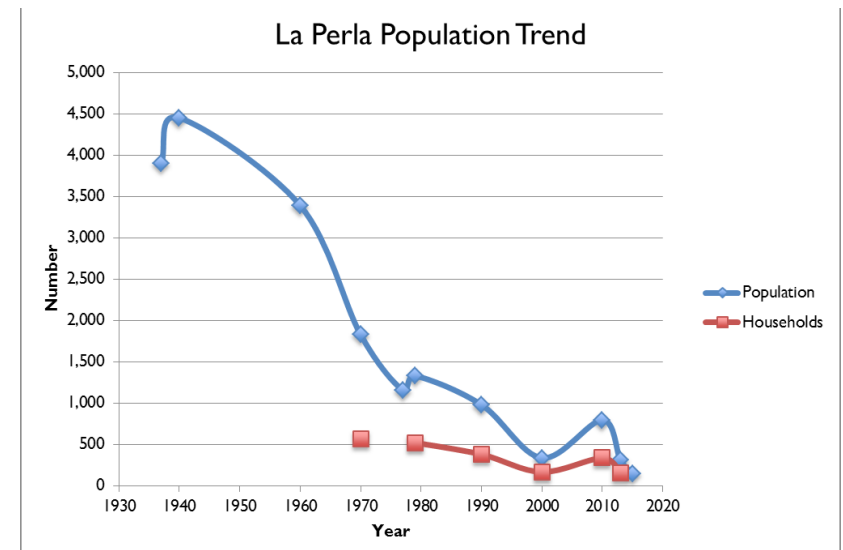


Figure 5. La Perla Population Trends, 1937-2015

³ Interview with Mr. Castillo, Department of Housing, 2015.

⁴ Income in 2013 inflation-adjusted dollars, ACS 5-Year Estimates, 2009-2013; Unemployment rate out of the population in the labor force population, which is 33.8% of the total population; U.S. Census 2010 and ACS 5-Year Estimates, 2009-2013.

Living conditions in La Perla during this time were squalid, characterized by extreme overcrowding, unstable structures and no indoor plumbing (Urban, 2015). La Perla was never entirely a squatter settlement, as land closer to the city walls was privately-owned and structures were rented out to residents. Squatting occurred on the lower portion where many unstable structures were self-built on public land; the closer the structures were to the beach, the worse the conditions (Marvel, 2008: 152; Urban, 2015: 8). Figures 6 and 7 show the early condition of housing. Even in the late 1970s, conditions in La Perla remained poor, as raw sewage from buildings drained downhill into the ocean and residents would toss trash down into the ocean and dilapidated houses were perched at the water's edge, which can be seen in Figures 8 and 9 (Marvel, 2008: 152).

Government Interventions in La Perla

By the mid-1900s, urban slums were a major concern for policymakers in Puerto Rico (Dinzey-Flores, 2008: 39). Slum clearance plans began in the 1930s and followed the example of urban renewal policies in the U.S.⁵ The approach to slums in Puerto Rico in the 1950s and 1960s was one of eradication by a proliferation of public housing complexes (Caldieron, 2012: 56; Marvel, 2008: 119; Urban, 2015: 12).

Slum clearance threats against La Perla began in the 1940s; government plans included razing La Perla to build a park and two-story concrete houses for 600 residents (Urban, 2015: 12). While this plan was not realized and La Perla was never cleared, the first demolition effort occurred in 1947, when the government cleared approximately 1/5th of residences and, in 1954, houses located close to the city walls were demolished (ibid.).

Government policy towards informal settlements, including La Perla did not officially change until the 1970s, but before this, alongside slum clearance initiatives, the state government supported slum-upgrading measures by providing infrastructure, services and amenities in squatter and informal settlements

(Marvel, 2008: 120). Some of these were the result of political efforts to gain votes, as the road paving or infrastructure installation was done just before the general elections (Marvel, 2008: 121). Similarly in La Perla, in 1953 there was a post office and school and the 1960s saw a library, nursery school, community center and health clinic open as well as the construction of a basketball court on the cleared area from the 1947 demolitions that still exists today (Urban, 2015: 16).

In 1978, the Department of Housing began efforts to improve infrastructure and living conditions in La Perla through a project competition for the "Comprehensive Development for the La Perla Neighborhood of San Juan, PR". A major feature of the proposal was the construction of Boulevard La Perla (Marvel, 2008). The purpose of this street, which runs along the ocean-front, was two-fold: to increase accessibility and circulation patterns for cars by connecting the only two vehicular entrances and to improve the sewage infrastructure. The new sewage system was installed under the road and a new pumping station was constructed, concurrently addressing environmental concerns of the raw sewage flowing into the ocean (ibid., 152). Substandard housing along the coast, seen in Figure 9, was demolished for the construction and the 100 families displaced were offered relocation options inside La Perla (ibid., 158). Other infrastructure improvements included work the steps that connect many houses and providing lighting and handrails (ibid., 151).

A major step towards formalizing La Perla came in 1982 when the first land titles were awarded to 95 resident homeowners (of 350 homeowners at the time) under Law 132 of 1975, which provides land titles for resident homeowners in squatted lands across Puerto Rico who qualify. The process is not "clear cut" and requires documentation to verify ownership, documents which many residents do not have, though by 2000 a total of 120 land titles had been awarded, it does not account for all households in La Perla (Marvel, 2008: 159). Regardless of their legal homeownership status, the residents perceive to have land tenure because generations of their family have lived there and regularly make improvements to their dwellings (Caldieron, 2012).

⁵ Since 1952, Puerto Rico has been considered a commonwealth of the United States.



Figure 6. City fortifications and La Perla overlooking the Atlantic Ocean, 1938



Figure 7. Wooden houses and unpaved streets in La Perla, No Date.

Despite a shift in government policy from clearance to slum upgrading, La Perla and its residents have historically been marginalized and there is little government presence as a result of the illegality of the settlement and its physical separation from the formal city. Residents have no expectation of access to emergency services such as police or fire and rescue (Azar & Rain, 2007:41).

Generally, the government has little influence within La Perla, which acts as a “semi-independent” area where residents have their own informal laws and the police rarely intervene (Caldieron, 2011: 80). As quoted by Azar and Rain (2007:40), a personal assistant to the governor described La Perla “... like the Vatican, those people, they take care of themselves, and we don’t bother them.” The assistant further described that the widow of a drug lord ‘took care’ of the community in an arrangement the governor was privy to, but that the governor “had no interest in trifling with the historical isolation and self-reliance” of La Perla (ibid., 40-41).

A recent notable government intervention was a raid in June 2011 led by the U.S. Drug Enforcement Agency, the state police and a number of other federal and state agencies against what was reported to be the principal heroin distributor in Puerto Rico, with headquarters in La Perla and estimated yearly profits of \$5 million. As a result, 59 residents of La Perla were arrested and 50 residences were seized in connection to drug gang activity. Among those arrested was the president of the Dock Workers Labor Union as well as the well-known community leader, Jorge ‘Cara de Truck’ Gomez, who also acted as the head of the drug trafficking organization and is now serving 30 years for drug trafficking (“Federales ocupan La Perla”, 2011; “Cara de Truck”, 2014). It is reported only La Perla natives, or those approved by natives, could participate in the narco-trafficking organization’s structure (“Cara de Truck”, 2014). It had been 16 years since federal agents last entered La Perla, at that time claiming to have eliminated the drugs in the community (“Desarticulan mega punto”, 2011).



Figure 8. La Perla from the ocean, 1948

A few days after the raid, both the Electric Power Authority (PREPA) and the Aqueduct and Sewer Authority (PRASA) shut off service to those residents who had illegal water and electricity connections, though when approached by the media, PRASA stated they were repairing broken meters (“Energía Eléctrica”, 2011). A resident explained that when PREPA had previously entered the community for the same reasons, residents attempted to have meters installed, but were denied permits because their homes were too close to each other (ibid.). Residents characterize these actions as abuse from the government and as a ruse to kick them out and redevelop La Perla. Since this raid, Caldieron (2011) notes that the economy of the community has decreased and structures have deteriorated (p. 80).

Nongovernmental Interventions in La Perla

The power gap created by the lack of constant government presence has also allowed for extra-governmental structures to develop in the community and provide services for its residents. ‘Cara de Truck’ was both the community leader and convicted head of the drug organization in La Perla; he rubbed shoulders with high-ranking government officials including the governor, would reportedly give orders to cease drug sales when politicians visited the community and managed to obtain property titles and improvements in educational and sanitation services for residents (“Desarticulan mega punto”, 2011; “Notorio narcotraficante”, 2012). Furthermore, as previously mentioned, the widow of a drug leader “took care” of the community, presumably meaning she provided services not provided by the government (Azar & Rain, 2007: 40).

This is not to say the only nongovernmental engagements are criminal, as there are also examples of charitable contributions and involvement in the community. Religious groups have been active for decades and both Catholic and Pentecostal churches were established in the 1950s. Charities have also been involved in working with the community. In 2010, a New York Knick’s star of Puerto Rican descent, Carmelo Anthony, refurbished the basketball court in La Perla through his charitable foundation (“Carmelo Anthony unveils courts”, 2012). The original dilapidated state of this court highlighted the local and state government’s lack of investment in the neighborhood. In another

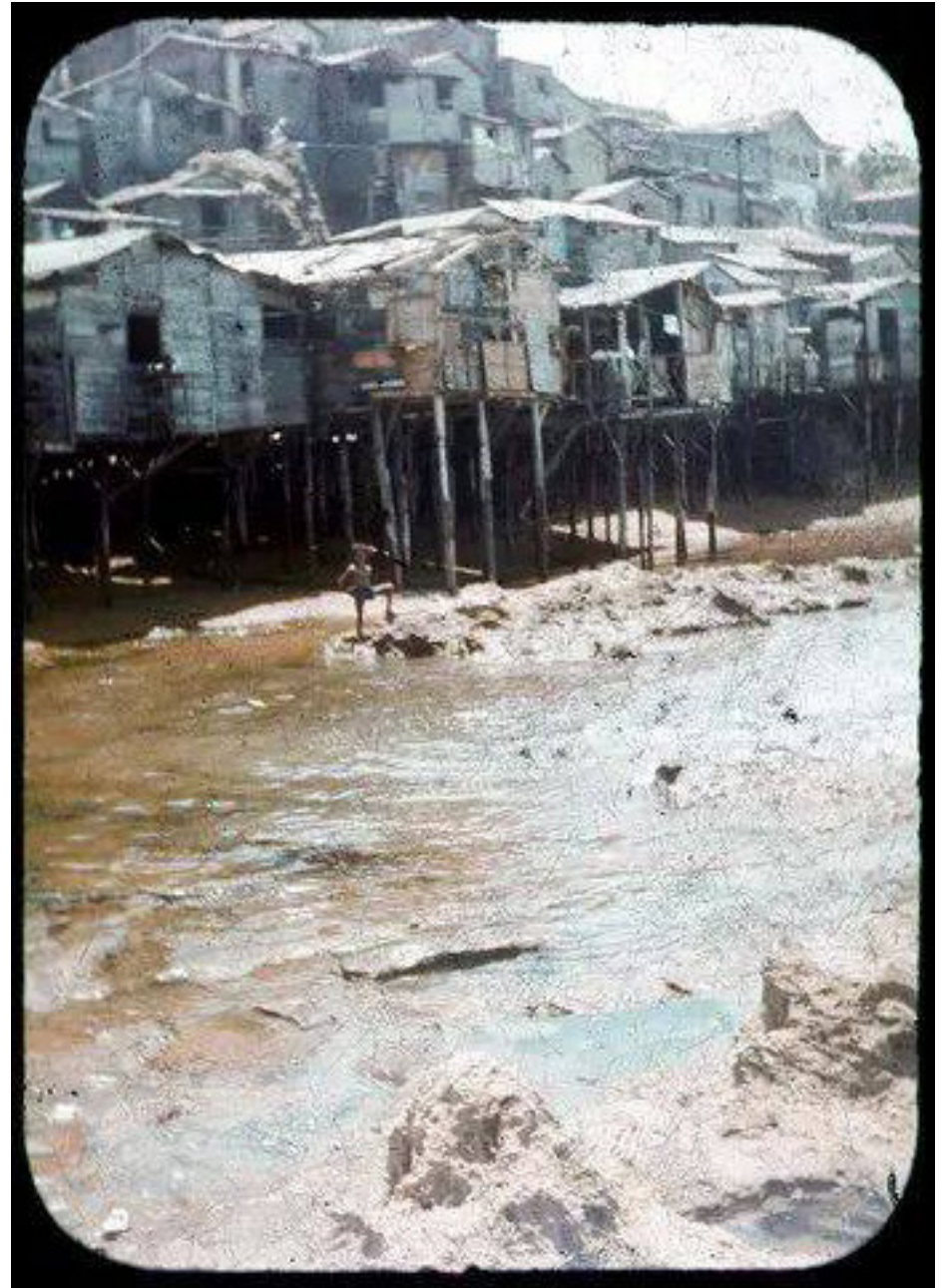


Figure 9. Wooden houses extended to the water’s edge before the construction of Boulevard La Perla, No Date.

example, René Pérez, of the Puerto Rican rap group Calle 13 recently began raising money through a foundation he created to fund the construction of an art school in La Perla that would ensure free tuition (“Calle 13”, 2014).

Local artists have also been involved in La Perla; Chemi Rosado Seijo recently hosted the second kite-building workshop and flying event, called Kite Festival Picture of La Perla as a means to symbolically “lift the barrio above the [city] wall” and reflect La Perla’s topography through photography and reestablish the tradition of festivals in the area (“¡A volar chiringa en La Perla!”, 2015). In 2006, the artist also backed the creation of the “bowl”, a skate bowl often used by the community as a pool, built in collaboration with the resident. Located on the waterfront and constructed from rubble that would accumulate in the area, it has become a symbol of urban art in the community (“El arte urbano”, 2014).

Regardless of La Perla’s location on prime and valuable real estate in expensive, highly visited Old San Juan, where there is considerable interest on the part of government and private investors to redevelop the area, the residents of La Perla are known to defend their community against redevelopment. Over time, residents have upgraded their wooden housing using materials such as cement blocks. Generations of families have lived here, despite unclear or lack of land tenure and despite evidence of historical marginalization.

V. Findings

When I told my family and friends I would be conducting interviews inside La Perla for my thesis, I was met with more than a few raised eyebrows. The general sentiment that exists across San Juan is that La Perla is a dangerous slum filled with dilapidated houses, extreme poverty and criminals. I was taught it was a place to never enter, a place so dangerous not even the police go in; I viewed it with trepidation. The stigma La Perla carries is not unfounded: the 1960s was a time of general deterioration in Old San Juan and as far back as the 1970s La Perla had a reputation for drugs.⁶

My first visit to La Perla was in the summer of 2010 with my father. We were in Old San Juan on what happened to be the same day as Carmelo Anthony was inaugurating the newly refurbished basketball court in La Perla. We walked past and looked down into the celebrations: there were many people and corporate sponsors present, so out of curiosity, both for the event and for La Perla, we decided to go down to explore further. We didn’t have to venture far into the community because the court is near a set of stairs that lead into La Perla and adjacent to the city wall. We walked past houses that were abandoned, run down, and graffitied (Figure 10). We walked around the basketball court for a bit and got a free Snickers sticker before leaving. I remember thinking to myself, “When else am I ever going to get the chance to go into La Perla?”

Four and a half years later in January 2015 I went back to take photographs and interview residents for the purpose of this thesis. Those same graffiti-covered houses are now canvases for art that can be seen from the street above La Perla (Figure 11). The rooftops are used as a canvas for art due to the location and topography of La Perla, its descending slope towards the ocean that places La Perla at a lower elevation than Old San Juan. As seen in Figure 12, La Perla hugs the ocean shoreline, bounded by the cemetery in the foreground and the fortress in the background. From one of the main streets of Old San Juan that runs above La Perla, Norzagaray Street, La Perla lies almost hidden below the city, Figures 13 and 14, though it can be better seen walking on foot

⁶ Interview with Mr. García Pelatti, Planning Board, 2015.



Figure 10. Abandoned structures in La Perla, July 2010.

from the sidewalk. These pictures were taken on the days leading up to the San Sebastian Street Festival, hence the beverage inflatables seen on the roofs. The rooftops provide an opportunity for advertisement, for which the residents are compensated.

There are four entrances into La Perla, two vehicular and two pedestrian stairways, though the roads going into La Perla are also heavily used by pedestrians. The main vehicular entrance is off Norzagaray Street, on Bajada Matadero, pictured in Figure 15, which leads to the old slaughterhouse; the street name translates roughly to Slaughterhouse Descent. The other vehicular entrance, Figures 16 and 17, is on the west end of La Perla by the cemetery. These two entrances were the colonial access points in the city walls to the slaughterhouse and cemetery, hence the small openings that an impediment for larger vehicles from entering La Perla. The two pedestrian entrances, pictured in Figures 18 and 19, are steep staircases seemingly constructed by a group of residents themselves to improve their accessibility between La Perla and Old San Juan.⁷



Figure 11. Rooftops in La Perla used as a canvas for art



Figure 12. La Perla hugs the shoreline between the cemetery and fortress.



Figure 14. Norzagaray Street, facing west: Old San Juan on the left, La Perla on the right.



Figure 13. Norzagaray Street, facing east: Old San Juan on the right, La Perla lying below eye level on the left.



Figure 15. Bajada Matadero entrance to La Perla.

⁷ Interview with Mr. García Pelatti, Planning Board, 2015.



Figure 16. Vehicular entrance to La Perla by the cemetery.



Figure 18. One of the pedestrian access points to La Perla along the city wall.



Figure 17. Narrow streets leading into La Perla by the cemetery.



Figure 19. The other pedestrian stairs leading into La Perla.

Once inside La Perla, the streets are difficult to maneuver as they follow the original roads created by residents when they constructed in the area—they are narrow, winding and parked cars occupy road space (Figure 20). There are no sidewalks except along Boulevard La Perla, or Tiburcio Reyes Street, the road completed in 1982 (Figure 21) and in some areas adjacent to the city wall (seen in Figure 19). Due to the densely built urban fabric, houses are very close together; many are accessible only through dark alleys and deteriorating staircases, shown in Figures 22 and 23. These stepped walkways have little or no illumination or handrails. Many structures are abandoned, run down and appear uninhabitable, shown Figure 24, while some are larger and in much better condition, such as in Figure 25. According to the community leader and government officials, La Perla is divided into three sectors or zones: San Miguel, Lucila Silva and Guaipao.



Figure 21. Sidewalk along Boulevard La Perla/Tiburcio Reyes Street.



Figure 20. Narrow, cramped streets inside La Perla.



Figure 22. Tightly packed homes in La Perla.



Figure 23. Stairways leading to homes.

Though there appear to be no physical dividers, divisions exist between the sectors. Guaipao is an older community made up of more elderly residents; Lucila Silva is where the drug trade is purportedly concentrated; San Miguel is the source of some resentment by other residents, as the majority of activities and services (such as the basketball court and the medical clinic) are concentrated here.⁸ I was told by government officials there is a lack of unity between the sectors and the residents of one sector cannot go to another, though the residents did not make mention of this during the interviews.⁹ Walking through the community, I did not perceive noticeable differences between sectors because I did not know where one began and another ended. Besides the number of chickens roaming the streets, what struck me was the normalcy of La Perla: there are small markets, a food stand and a number of bars; a gas company was delivering tanks and collecting payments from residents. There is a health clinic, school and the community center and mailboxes are located inside the old slaughterhouse (Figure 26).



Figure 24. Deteriorated structures and houses in La Perla

⁸ Interview with La Perla community leader, 2015.

⁹ Interview with Dr. Rivera, Special Communities Office, 2015; Interview with Mr. Castillo, Department of Housing, 2015.



Figure 25. A large, well-maintained house in La Perla.



Figure 26. The old slaughterhouse that today serves as a community center.

Services

In order to focus the scope of service provision, seven public services were selected for study within La Perla: electricity, water, garbage collection, public transportation, education, fire and rescue, and safety and security. The 16 residents interviewed were asked if they had access to the service, if they paid for that access, what was the quality of the service, was the service provided by the government and if not, then by whom. The findings pertaining from each service studied are detailed below. The complete data collected about service provision is available in Appendix C.

Electricity

All residents interviewed stated they had access to electricity provided by the government. Though I was not able to determine in what year the electric service provision to La Perla began, the community has had access to electricity since at least the 1940s (Urban, 2015: 15). Mr. Alicea, the Executive Director of PREPA, the Puerto Rico Electric Power Authority, stated that residents have always had access as providing lampposts and power lines and connecting houses to the formal grid became an issue of public safety.

In terms of the quality of the electrical service, of the residents that answered, only one said the quality of the electrical service was poor, nine out of the eleven who answered described the quality as 'good' or better. Two residents stated that there are occasional power outages but electricity is quickly restored when they do occur and overall they have good service with the electric company.¹⁰ Figure 27 summarizes the residents' responses.

When asked if they paid for their electricity usage, five residents replied no, two residents did not answer and nine replied that they did pay for access to electricity, though it didn't seem they were being entirely forthcoming with their answer. One older woman stated proudly that she paid her electric bill every month. Another resident who answered yes to the question later said that her house had once been metered by PREPA, but her first billed arrived at \$68,000. Since she refused to pay, her electricity was turned off; she then

¹⁰ Brief power outages in San Juan are not uncommon, especially during heavy rainfall.

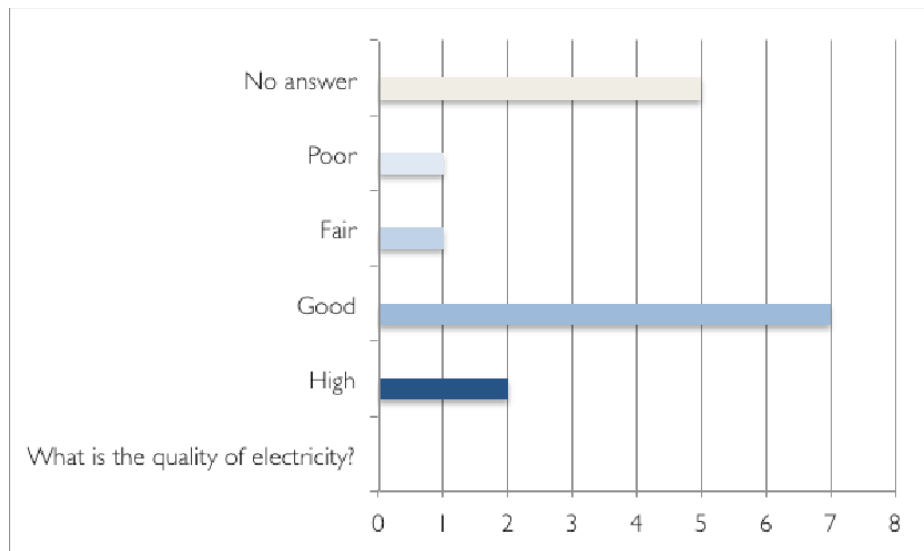
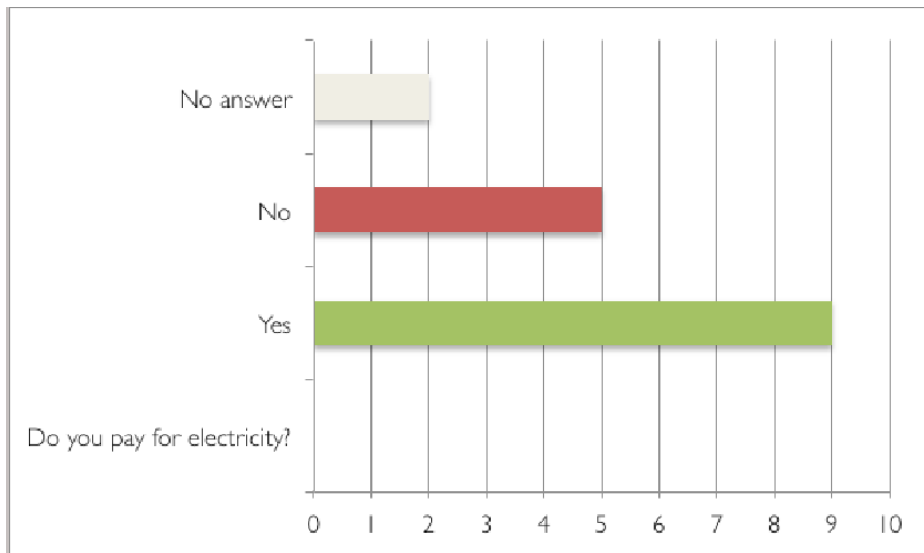


Figure 27. Electricity Service Interview Responses

¹¹ Interview with Ms. Rodríguez-Figueroa, Special Communities Office, 2015.

¹² Confirmed by Ms. Rodríguez-Figueroa, *ibid.*

simply connected to the grid illegally. She said that when other residents pick up their mail and see an electric bill, they throw it in the trash on the spot; there is a box in the mail officer where residents toss their bills without opening them.¹¹ Another resident estimated that “80 to 90% [of the residents] don’t pay for electricity,” and another said that everyone was connected illegally. Enforcing payment and legal connections to the formal grid entails PREPA going to individual homes to shut off service, but due to safety concerns, employees enter La Perla with police escorts or as part of a police intervention, as was the case with the drug raid in 2011.

One resident stated that they don’t refuse to pay for their electricity use; it just “has to be what is fair.” Two residents interviewed conveyed there had been attempts by the community to begin paying for electricity, but their bills came in the thousands; they were likely being back-billed or billed for other houses connected through their homes.¹² The community leader confirmed that there was an attempt by residents to pay for electricity, but “they wanted to charge everything,” and upon pressing him further on whether residents paid for the service, he cautiously added, “there are people who do not pay for electricity.” Puerto Rico’s residential electric rate is the second highest in the United States, after Hawaii, at \$27.32 per kilowatt hour (“Prepa rate review”, 2014).

Despite Mr. Alicea stating that providing electrical access to La Perla was a matter of public safety, ironically public safety remains a large concern because some residents are forced to illegally connect to the grid, despite of and because of the formal infrastructure in place. Many houses do not have meters, either because they never had them or were allegedly denied permits to have them installed. Due to the unpermitted construction that occurred in La Perla, the electrical wiring in the houses is not up to code or done by licensed electricians. As a result, houses either connect to each other or directly to the electric poles or lampposts, as seen in Figure 28.



Figure 28. House in La Perla connected directly to a lamppost.

“Electricity theft is a public issue,” said Mr. Alicea, adding that often times people use jumper cables to do so. He pointed out that there is greater theft in commercial spaces and wealthier neighborhoods that have greater energy consumption than in La Perla.

Water

All residents interviewed had access to running water inside their homes and while some state they pay for the government-provided service, the official numbers reflect that no resident has ever paid a water invoice. Figure 29 reflects the resident’s responses as to the quality of the service and if they pay for access.

Eight residents responded that the quality of the water service was good, with one saying quality was high. Over the years, the quantity and quality of the water has improved for the Old San Juan area.¹³ When asked if they paid for water, five residents responded they did, while nine said they did not. I did not get the sense the residents that answered yes however, were being entirely forthcoming; the same resident who proudly stated she always paid her electric bill every month hesitated before answering yes to the same question about water. It was not until my sixth interview that a resident said that the people of La Perla shouldn’t have to pay for water. It was a sentiment repeated by two other residents as well as the community leader; residents of La Perla believe they have the right to free water access. Two residents claimed that Doña Fela, mayor of San Juan between 1947 and 1969, said residents of La Perla should have access to free water—“she [Doña Fela] said we are poor and we shouldn’t have to pay for water because water falls from the sky and should be free,” said one long-time resident. “[Water] is a gift to La Perla,” said another. The community leader claimed that an agreement had been reached with the government in 1900 that excluded residents from having to pay for water service. Though I could not verify these claims, no government official interviewed made mention of any similar agreement.

¹³ Interview with Mr. Lázaro, PRASA, 2015.

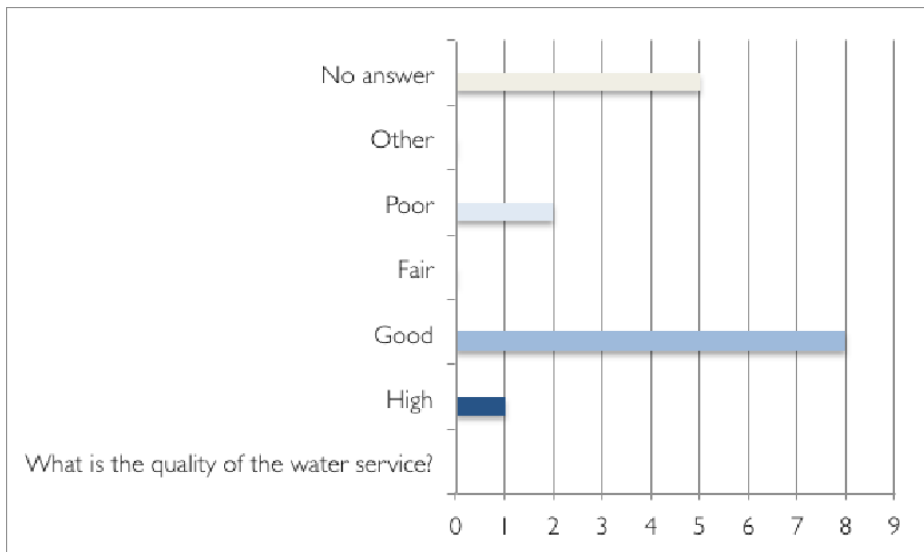
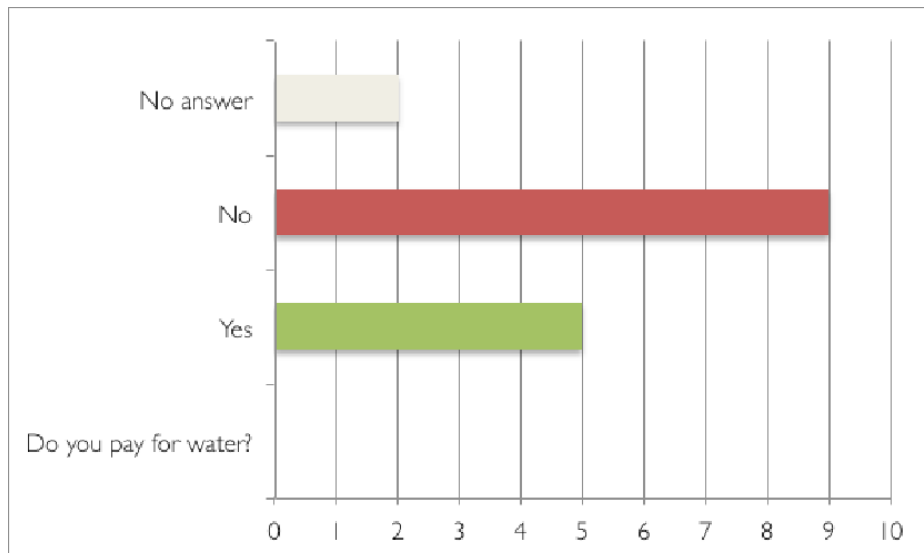


Figure 29. Water Service Interview Responses

Formal water distribution pipes in La Perla were installed between 1969 and 1976, though the community did not allow meters to be installed at that time. When meters were eventually installed, residents broke them. Two residents interviewed said that residents could not pay for water because there are too many houses connected to one another: “it’s never been paid because everyone is connected to someone else,” one said. Some houses appeared to have illegal connections to the water system, pictured in Figure 30, with makeshift, aboveground piping. Though residents have running water in their homes, they do not access it through paying for the service, they are either connected illegally or simply do not pay their bills. “They don’t pay for water,” said one official.¹⁴ I approached one resident who was cleaning the street with a hose and asked if I could interview him after he was done. He said “oh no it’s okay, ask questions,” as he put the hose, still on, down on the ground. The water kept running through the entirety of the interview that lasted a little over five minutes. It was clear he was not concerned with the water being wasted or what he would have to pay for the use.



Figure 30. Makeshift water connections.

¹⁴ Interview with Ms. Rodríguez-Figueroa, Special Communities Office, 2015.

¹⁵ Interview with Mr. Lázaro, PRASA, 2015.

¹⁶ *ibid*

Mr. Lázaro, Executive President, and Mr. Marín, Executive Director, of the Puerto Rico Aqueduct and Sewage Authority (PRASA) said that since the first meters were installed in La Perla in 1997, not one account had ever paid its bill. The total amount of debt owed to PRASA for water services exceeds \$157,000 as of January 2015. The majority of accounts in La Perla are billed at the minimum fixed rate of approximately \$20 a month because, for the same reason payment compliance is hard to enforce, PRASA's presence is not welcomed in La Perla and thus is a "high risk" area for its employees.¹⁵ Both reading meters in order to bill users and cutting water service off to enforce payment involves employees physically going to the homes. However, employees are not welcome in La Perla and it is dangerous for them to execute their work, as water meter lids are often used to hide drugs.¹⁶ Mr. Marín told me the last PRASA employee who went into La Perla had all the wheels of his car stolen, and the rest of the car had to be lifted out by PRASA with a crane. However, when maintenance to the sewer pump is necessary, PRASA employees have no problem entering La Perla. It is clear the residents feel very strongly about their right to have free access to high-quality water service.



Figure 31. Trash receptacles like this one are found throughout La Perla.

Garbage Collection

Garbage collection in La Perla is faced with a multitude of challenges. Municipal garbage trucks are too large to enter and maneuver the narrow streets; once inside, there are only two thoroughfares and three shorter dead-end streets; many houses are located in informal alleys or are stacked on the sloping ground and accessible only by stairs.

According to residents interviewed, garbage collection has greatly improved recently under the current mayor of San Juan, elected in 2012. Large green dumpsters, seen in Figure 31, were installed at specific locations to serve as centralized garbage depositors for residents and regular collection points for municipal workers. As the garbage trucks are too large, residents describe how "every day" very early in the morning, the workers park the trucks on the lawns above La Perla and come down in smaller vehicles to collect the trash bags from the dumpsters that are then taken to the garbage trucks. Residents do not have to directly pay for this municipally-provided service and when asked about the quality of this service, all of the residents who responded to this question described the quality as high or good. Figure 32 provides the interview responses on the garbage collection service.

Some residents, when asked during the interview if they had access to garbage collection services expressed their excitement with the new receptacles and collection system as trash and dirty streets used to be a problem. They emphasized that these dumpsters had lids, due to the large number of stray cats and dogs.

Before the new dumpsters were provided, the residents would have to leave their trash out on the street for pick-up by the municipality. The garbage collectors have "always" gone, but only one to two times a week and the problem was with how the residents threw their trash out, according to Ms. Rodríguez-Figueroa. This trash would not only smell, but also dirty the streets that are the main venue of interaction for the residents. Furthermore, the dozens of stray animals would exacerbate the problem by ripping bags open and picking through the trash. The municipal garbage collectors would only collect the trash bags that were still intact, leaving large amounts of waste on the streets that the residents then had to clean. Some areas of La Perla had

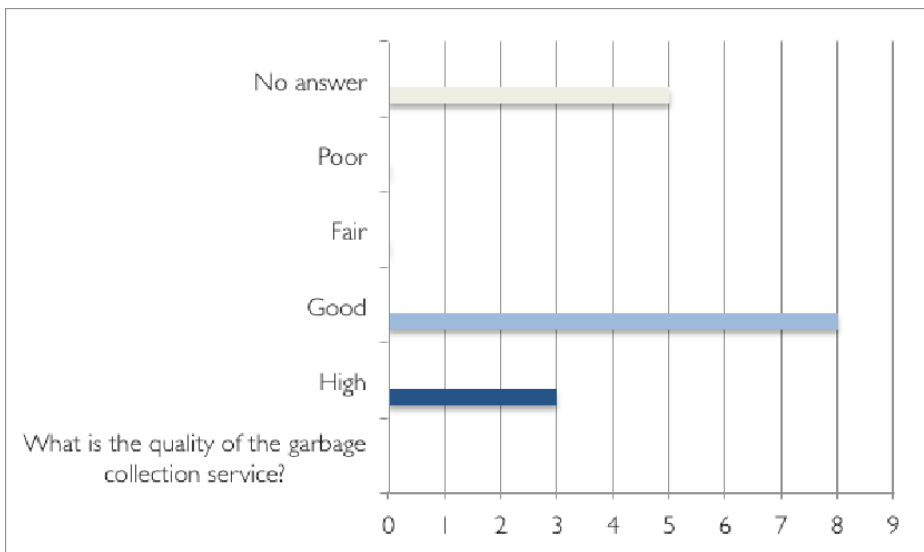
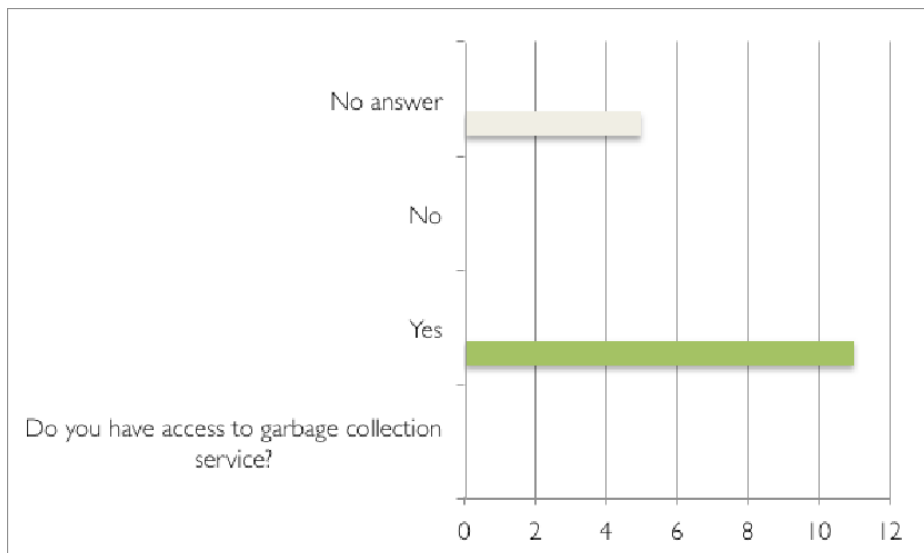


Figure 32. Garbage Collection Service Interview Responses

trash containers, but without lids; the community leader told me it was the board that took the initiative on asking the municipality for new dumpsters.

Residents still maintain these streets; during visits to La Perla, the trash was located inside these dumpsters, the streets appeared tidy and I witnessed one man washing the street with a hose and another sweeping. Dozens of stray animals roam the streets, as do pets, though the dumpster lids minimized the trash scavenging.

Public Transportation

Residents of La Perla technically have the same availability to public transportation provided by the state as do other residents and visitors of Old San Juan, though La Perla residents' perception of access to public transportation varies. The connotation of 'access' for residents of La Perla must be further characterized through additional definitions and spatial information.

When asked the question, "Do you have access to public transportation?", ten residents said they have access, four said they do not and two did not answer the question. Of the 14 residents who answered the question, ten residents expanded on their responses, revealing interesting individual variations in the perception of access. Figure 33 visualizes the residents' responses to the interview questions pertaining to public transportation.

Three of the residents who answered 'no', characterized public transportation as that which existed within La Perla; they responded 'no' to having access to this service because it does not extend to inside the boundaries of La Perla. As one resident stated, "Inside La Perla there is nothing... The trolley takes too long. Taxis don't come down, you have to go up to catch them, but some of them do but only when you call them directly."

Two residents described the bus terminal as being "far;" however, one resident was saying the quality of public transportation was "good, but far", while another resident stated he did not have access to public transportation

¹⁷ I witnessed a man spreading out food for the stray animals, so there are residents who care for these animals' well-being.

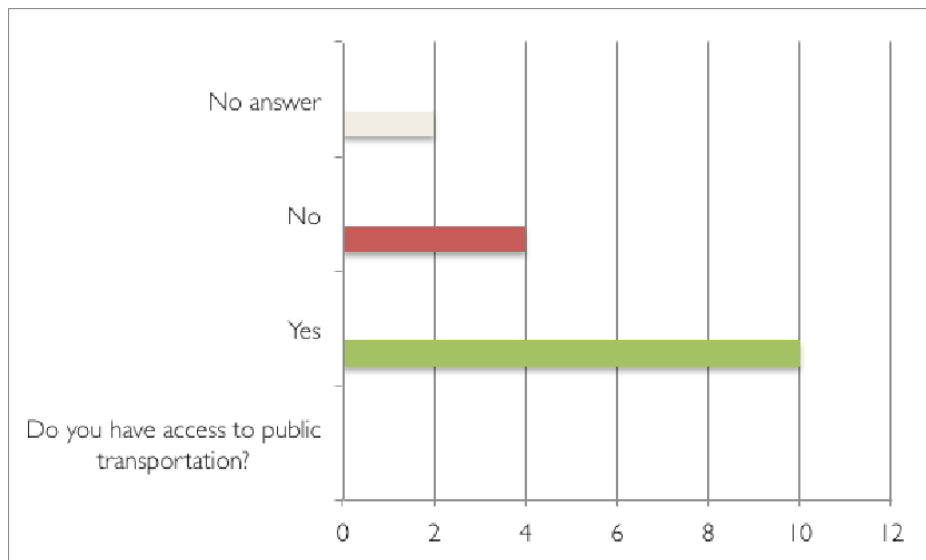


Figure 33. Public Transportation Service Resident Responses

because it was “far”. Even those who affirmed access to public transport admitted that it is a long walk to the bus depot that services Old San Juan. One resident said it is a “ten minute walk” to the buses, others said it was too far, that they couldn’t or didn’t make the walk and one said she relied on a neighbor driving her to the station. Some school children use these buses as transportation to school. One resident said the buses were good, but one had to “wait a lot”. When asked about the trolley, which runs in Old San Juan, two residents replied that they do not utilize it as it takes too long, essentially dismissing it as a form of viable public transport.¹⁸

As for other forms of transportation in La Perla, one resident mentioned that the supermarket chain located in Old San Juan, SuperMax, offers a small bus service that drives residents and their groceries home. Upon further investigation, I found out that it is not so much a bus, but closer to a golf cart, and it

serves all of Old San Juan, with a minimum \$25 grocery purchase.¹⁹

Despite these options, La Perla residents mainly rely on private car ownership, borrowing a neighbor’s car, or depending on rides from others. One resident, whose daughter attends a public school in another part of San Juan, said she relied on her neighbor’s car to take her daughter to school; another resident said she never rides the bus and that her daughter, who lives outside of La Perla, drives her to all her medical appointments.

Parking in La Perla appeared to be haphazard, with cars parked in front of houses on the wider streets and a small, makeshift parking lot near the western entrance, adjacent to the cemetery and ocean cliffs. I witnessed residents cordoning off this parking area on the day the San Sebastian street festival was beginning, so as to ensure the lot remained for resident use only. By no means is there enough room for all the residents to park cars in La Perla, though it is clear many residents do not own private vehicles. Recent community renewal plans being developed by the Department of Housing in conjunction with residents proposed constructing more parking, an idea the residents rejected.²⁰

Within La Perla, residents can walk where they need to, due to the neighborhood’s small size, though its steep terrain makes some houses accessible only by deteriorating stairs. During my visits, I saw some men, and a few children, moving around the neighborhood on small motorcycles, one in particular I saw on at least two occasions. I also saw many kids riding on bicycles. Residents’ access to public transportation must be understood within the broader picture of its components and spatial accessibility. The area of Old San Juan is serviced by and connected to other areas of San Juan and the metropolitan area, as well as to the Metro Urbano rail line, by both public bus and ferry service operated under the state Department of Transportation and Public Works. There is one bus terminal, Covadonga, from which eight bus routes, run by the Metropolitan Bus Authority (AMA by its Spanish name) originate. The buses are considered the primary form of public transportation within San Juan, though they do not operate within Old San Juan and only go

¹⁸ I have ridden the trolley a few times as a means to get from the bus station to other points in Old San Juan, but overall, I simply decide to walk as the wait can be longer than the walk to the destination.

¹⁹ SuperMax offers and advertises a similar delivery service called ‘Pon SuperMax’ (literally, SuperMax Ride) in two other stores.

²⁰ Interview with Mr. Castillo, Department of Housing, 2015.

as far as Covadonga.

The AcuaExpreso terminal is located adjacent to the cruise ship port. There are two ferry routes that connect Old San Juan with the municipality of Cataño and with Hato Rey, San Juan’s financial district. Tourists commonly use the ferries, particularly the Cataño route, as a form of transportation to the Bacardi Rum Distillery. In San Juan, the AcuaExpreso is not popularly considered a regular form of public transportation; no La Perla resident identified the ferry as a form of transportation they used during interviews. The fares for the bus and ferry services are listed in Table 1. The low prices are reflective of the population most in need of the service and are kept low to ensure accessibility.

Fares for AMA Bus service	Fares for AcuaExpreso:
Regular Fare: \$0.75	San Juan – Hato Rey Route:
Student Fare: \$0.60	Regular Fare: \$1
	Ages 75+ Fare: \$0.50
Ages 60 – 74 Fare: \$0.35	San Juan – Cataño Route:
Handicapped, Medicare and Ages 75+ Fare: Free	Regular Fare: \$0.50

Table 1. Prices for public transportation in San Juan
Source: PR Department of Transportation

For transport within Old San Juan, besides driving or walking, the free trolley service runs three routes, seen in Figure 34, and links attractions as well as the bus and ferry terminals. The main vehicular entrance to La Perla is located near stops 20 and 21 (the streets of La Perla are visible in the left edge of the city, but notably unlabeled), across the city, Covadonga is stop 2 and the ferry terminal is stop 14. The interviewed residents did not rely on the trolley and did not take the ferry, leaving the majority to walk to the station to catch the bus.

Though one resident described it as a “ten minute walk,” the commute to Covadonga could be longer and more arduous than it appears on a map. There is little shading due to a lack of trees and from further locations inside La Perla, considering the overall accessibility of the area, with steep streets and stepped walkways, it can take longer and be more difficult.

While the majority of those interviewed said they have access to private transportation, residents of La Perla do not have equal or fair access. While this fact is more discernible within Old San Juan, inequality of access is an issue across San Juan and Puerto Rico as a whole as private car ownership is high and the major form of transportation across the island.

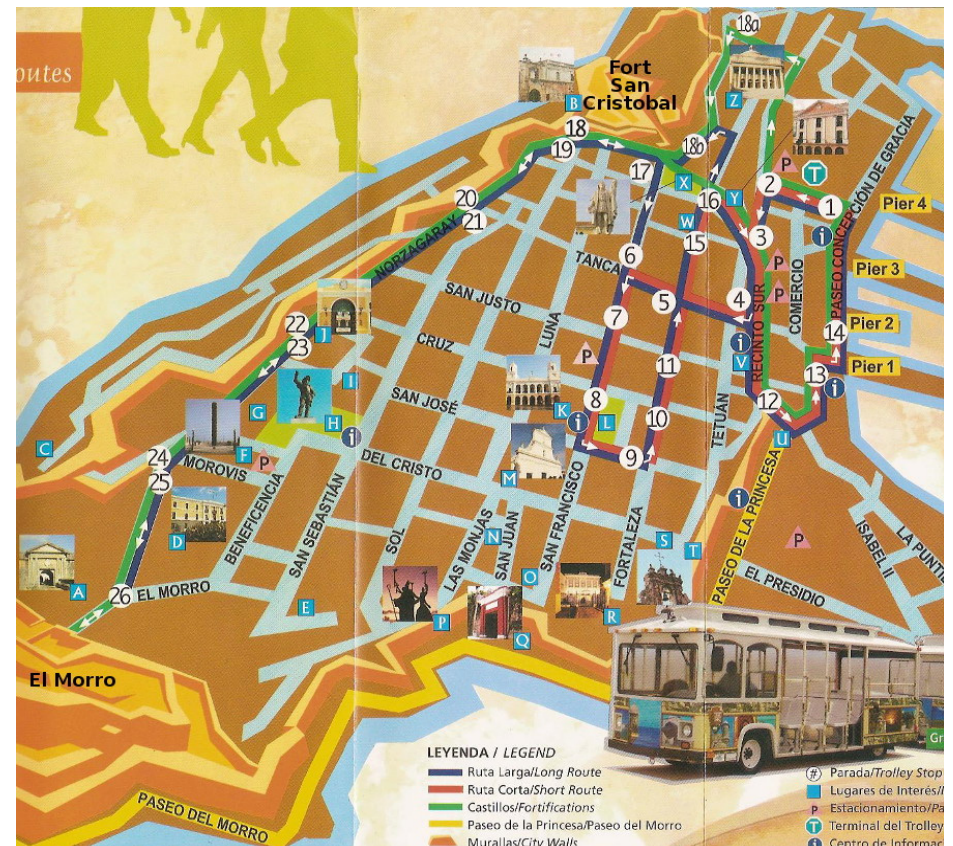


Figure 34. A map of the free trolley that operates within Old San Juan La Perla’ stops are 20 and 21, Covadonga bus station is stop 2, ferry station is stop 14.

Education

La Perla is served by all levels of public schools, run by the Puerto Rico Department of Education, and by a Head Start Center, managed by the city of San Juan. The four schools are: The Head Start Center, Abraham Lincoln Elementary School, Dr. José Celso Barbosa Secondary School and the José Julián Acosta Specialized Theater Secondary School.²¹ Interviewed residents were asked about the community's access to public education and its quality, their responses are shown in Figure 35.

Residents did not comment much on the quality of the schools. One resident, when asked about the schools, seemed happy to share that her daughter attended a specialized bilingual public school in another area of San Juan.

In stark difference to many other low-income communities in Puerto Rico, La Perla is home to a Head Start Center. The only educational facility presently located within the community's borders, the Head Start Center, seen in Figure 36, is colorfully painted with a fun design and situated adjacent to the health clinic and across from the Matadero. It was opened in the 1970s, during a series of infrastructure improvements.

The Abraham Lincoln Elementary School (known locally as 'La Lincoln') is located adjacent to La Perla on Norzagaray Street and is visible from the community basketball court, Figure 37. One resident shared an anecdote that five years ago, the government attempted to shut the school because of poor attendance, "but we [the residents] got in there [and protested] and they didn't close it." When asked, the community leader said the reported school closing was just a rumor.

Two secondary schools service the community, grades 7-12. José Celso Barbosa is located outside of the Old San Juan area but still on the San Juan islet, making it less accessible on foot than the other schools, but residents said the children take public transportation buses to class.²³ José Julián Acosta is locat-

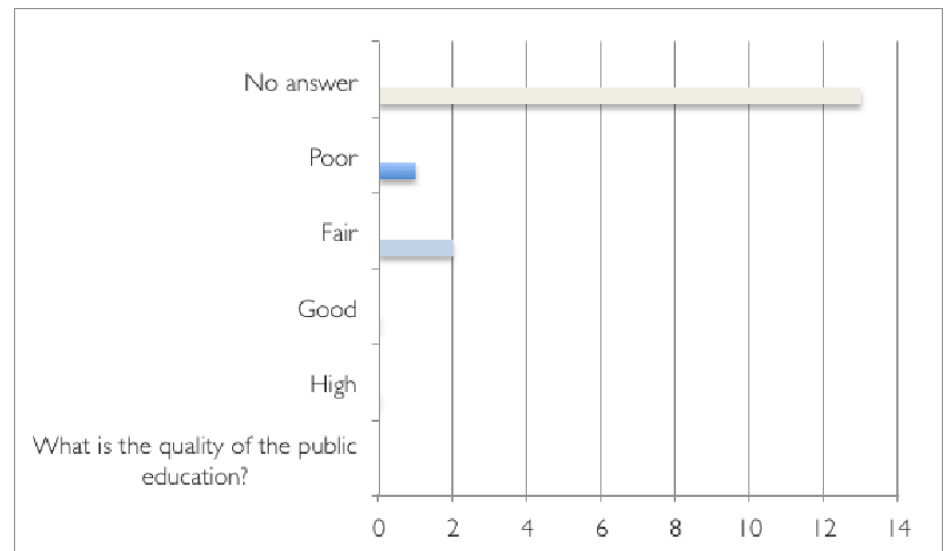
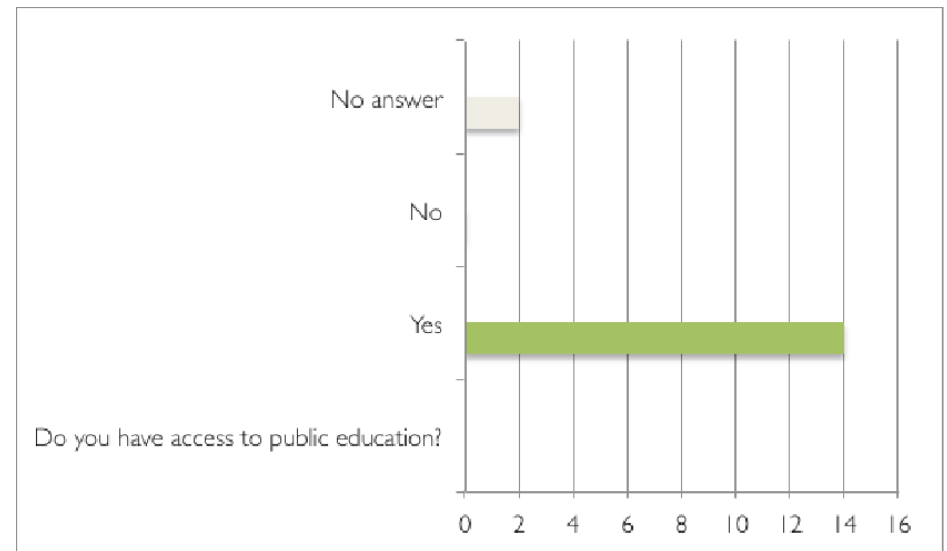


Figure 35. Public Education Service Interview Responses

²¹ The Abraham Lincoln and José Julián Acosta schools are both listed as historic buildings contributing to the Old San Juan Historic District, http://www.nps.gov/nr/feature/weekly_features/2012/PR_12000465.pdf, US National Park Service National Register of Historic Places Registration Form, June 15, 2012.

²² In 2010, the state government, looking to cut costs in the budget, was pursuing (and still does pursue) consolidating schools with little attendance.

²³ Which still requires commuting to the Covadonga station first.



Figure 36. Head Start Center in La Perla.



Figure 37. Lincoln Elementary School, La Perla basketball court in the foreground.

ed next to the historic Tapia Theater and is a secondary school specializing in theater; located within Old San Juan and within closer walking distance to La Perla. Though I did not inquire about the attendance rates of children from the community that attend those schools, residents named both as schools the children attend.

School rankings of the public schools in Puerto Rico do not exist and the general quality of the education is not readily assessed, especially in an education system that is widely perceived as poor. One way I've devised to objectively measure the quality of these three schools, Head Start not included, is to utilize the results from the Puerto Rican Tests of Academic Achievement (PPAA) standardized exam.²⁴ The PPAA tests public school students across elementary and secondary grades on their proficiency in English as a second language, Spanish, mathematics and science. Comparing how these schools fare in relation to state averages can shed light as to the quality of public education La Perla residents have access to.

Table 2 is a condensed version of the school comparison chart found in Appendix D²⁵, which details the average proficiency attained on the PPAA for the tested grades in the different subjects in all three grade schools compared to the Puerto Rico average. Using data from the 2013-2014 school year, the schools' performance against the state average varies depending on the subject matter and grade. For example, Lincoln Elementary School fared better against the national average in Spanish than in English, and overall, it would appear the Acosta Secondary School performed better than the Barbosa Secondary School in all subject matters. However, both secondary schools have been classified by the Department of Education as "priority" schools, which are the 5% lowest performing schools, as Barbosa is under a federal School Improvement Grant program and Acosta, despite its performance on the PPAA, has a graduation rate of 46.4%.²⁶ Lincoln Elementary is classified a "transition" which represents the 75% of the schools in the system that are neither exceling, priority, nor focus. Despite the low and average performance of these schools, the state average proficiencies are low, a sign of the

²⁴ In Spanish: Pruebas Puertorriqueñas de Aprovechamiento Académico.

²⁵ The average proficiency chart available in the appendix contains data from the 2011-2012 and 2012-2013 school years.

²⁶ Puerto Rico Department of Education Academic Profiles, School Year 2014-2015

		State Average	Lincoln Elementary	Barbosa Secondary	Acosta Secondary
2013-2014					
Spanish		Average Proficiency %			
Grade	3rd	55%	42%	-	-
	4th	50%	55%	-	-
	5th	48%	33%	-	-
	6th	49%	63%	-	-
	7th	39%	-	32%	83%
	8th	41%	-	38%	84%
	11th	40%	-	20%	100%
English		Average Proficiency %			
Grade	3rd	53%	11%	-	-
	4th	39%	27%	-	-
	5th	43%	17%	-	-
	6th	46%	37%	-	-
	7th	29%	-	6%	44%
	8th	38%	-	15%	78%
	11th	43%	-	46%	100%
Math		Average Proficiency %			
Grade	3rd	69%	79%	-	-
	4th	54%	64%	-	-
	5th	44%	17%	-	-
	6th	19%	32%	-	-
	7th	8%	-	0%	9%
	8th	10%	-	0%	11%
	11th	10%	-	26%	68%
Science		Average Proficiency %			
Grade	4th	67%	82%	-	-
	8th	26%	-	33%	51%
	11th	48%	-	74%	100%

Table 2. Average proficiency attained on PPAA standardized exam by school, compared to Puerto Rico-wide average, 2013-2014 school year.

Source: PR Department of Education Academic Profiles, school year 2014-2015.

island-wide state of education. Overall, residents of La Perla have the ability to access public education, and, from interviewing a resident, the ability to apply to specialized schools outside the area.

Fire and Rescue

While the Puerto Rico Firefighter Crops provides service to La Perla, in practice it appears they are not the ones who actually put out any fires within the community. “The whole neighborhood would burn down if we waited for them [fire department] to put it out.”

The majority of residents that responded to the questions pertaining to fire and rescue services concur that the fire department does respond and that ambulances come down into La Perla, though the questions and responses in this section tended to revolve around just firefighting. The residents’ responses are shown in Figure 38.

The firefighters are present in the community, two residents said they inspect and give maintenance to the fire hydrants regularly, though another resident complained the fire department had been shutting off water to some hydrants and, in her words, “making it more dangerous” for the community. In my visits to La Perla, I was surprised to see a large number of fire hydrants throughout La Perla, more than I am accustomed to seeing in other areas of San Juan. The amount of fire hydrants was most observable along Boulevard de La Perla, likely owing to the fact that the road was built to improve the infrastructure in the community. Figure 39 below is a picture of fire hydrants found in La Perla; the difference in their appearance suggests that some are still in service while others have oxidized, due to the salt-water spray from the ocean.

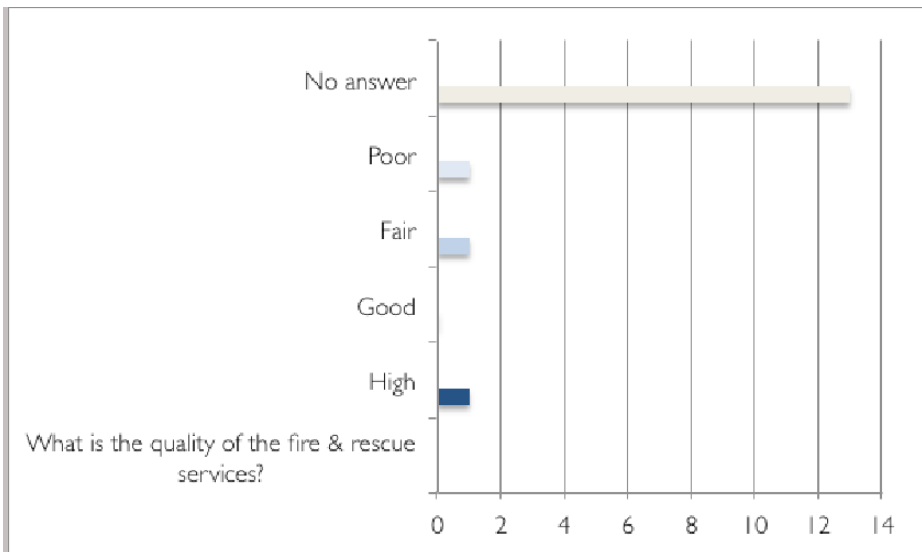
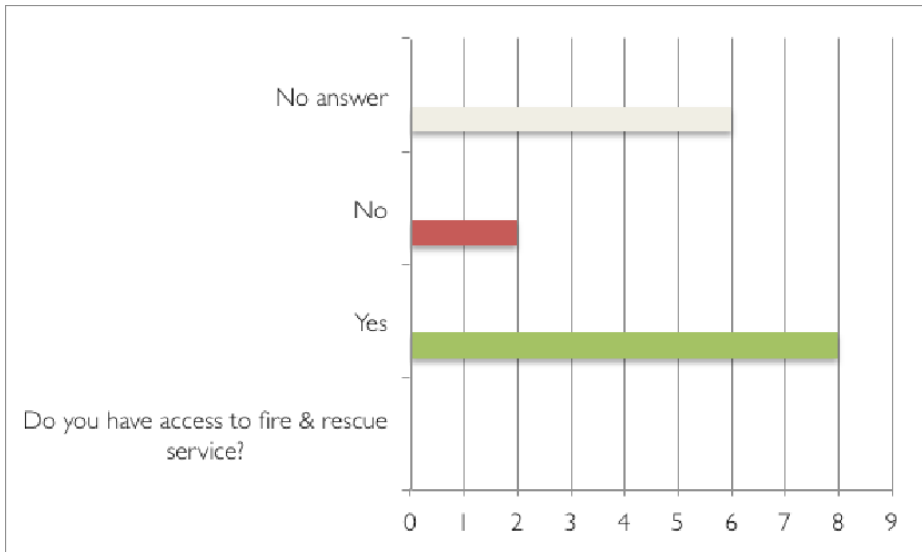


Figure 38. Fire and Rescue Services Interview Responses

The firefighters are present in the community, two residents said they inspect and give maintenance to the fire hydrants regularly, though another resident complained the fire department had been shutting off water to some hydrants and, in her words, “making it more dangerous” for the community. In my visits to La Perla, I was surprised to see a large number of fire hydrants throughout La Perla, more than I am accustomed to seeing in other areas of San Juan. The amount of fire hydrants was most observable along Boulevard de La Perla, likely owing to the fact that the road was built to improve the infrastructure in the community. Figure 39 below is a picture of a fire hydrant found in La Perla; the difference in their appearance suggests that some are still in service while others have oxidized, due to the salt-water spray from the ocean.

The residents use the hydrants for a number of purposes beyond fighting the “rare” fire—a man I interviewed was using a hose connected to a hydrant to clean the street and another resident complained that the water pressure decreases when they open the hydrants for the kids to play (Figure 39).



Figure 39. A fire hydrant in La Perla

Three residents acknowledged the firefighters' response time was slow and one resident reported that she had never seen them, but it didn't seem to matter, as they also admitted residents have their own fire hoses, "everyone here has a hose," to put out a fire. One resident said there had been a fire recently at four in the morning, but the residents had taken care of it themselves.

One resident described the process of the firefighters responding to a fire: since the fire trucks are too large to enter, let alone maneuver the narrow streets, the trucks have to set up above La Perla and the firefighters have to come down into the community with the fire hoses. This would explain the slow response time residents mentioned, which may also be due to the time it may take the fire trucks to arrive, since depending on the time of day and day of the week, entering Old San Juan up through Norzagaray Street to reach the entrance of La Perla can be very congested.

Safety and Security

Safety and security is likely the most controversial of the services provided in La Perla. The residents feel it to be a safe place; it certainly seems to be, as residents congregate outdoors, engaging in conversation as young children and even pets run up and down the streets, riding their bikes and playing with each other.²⁷ I even felt safe to walk around the community by myself as I interviewed residents, by which I felt pleasantly surprised due to the negative and dangerous perception I held, and many others still hold, of La Perla. Safety and security, as public goods, are naturally and regularly provided by the state in most societies, at a local level through the police force. In the case of La Perla, this is not necessarily the clear-cut situation. So do the residents of La Perla have access to the police, in the sense that they come into the community? Technically. Is it the police that offer safety and security to the residents of La Perla? Not necessarily.

When asked if the police provide safety and security in the community, Figure 40, five residents interviewed responded 'yes', half of residents interviewed replied no, and three others didn't give a straightforward 'yes or no' answer

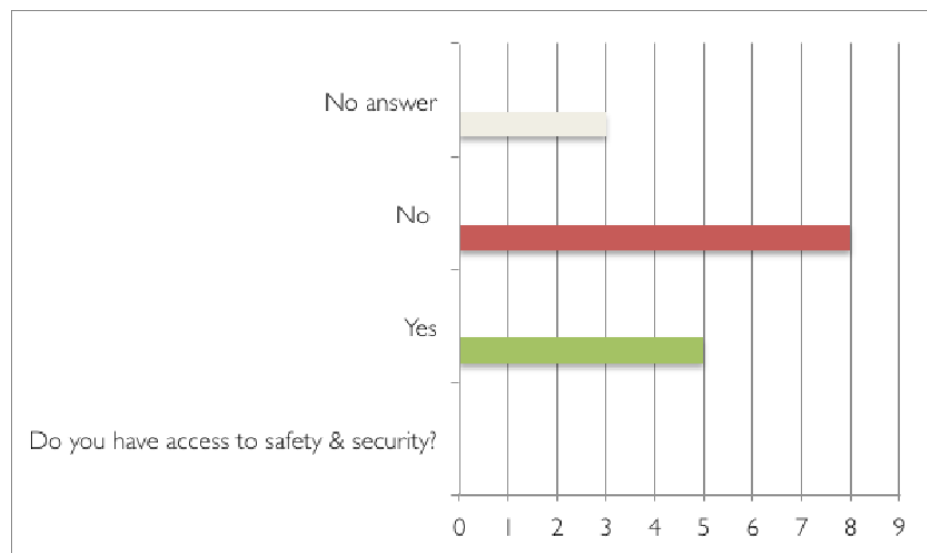


Figure 40. Safety and Security Service Interview Responses

but in their responses highlighted the nature of the relationship between the police and La Perla. These responses included that the police made rounds "de mil en cien," or "once in a while", that they come into the community for raids, one resident summarizing that the police "don't come down often unless it is [for] a raid."

Those that answered 'yes' expressed that the police help maintain order within the community- one resident expressed she liked having the cops around because they made her street quieter. Another resident responded that the police make their rounds "like [they do] everywhere else" and they maintain the order, adding that La Perla is a "lively" place. Lastly a man described that the police officers "come down" and that everything is "calm here now... the drug thing changed because they're all jailed," referring to the last major raid in 2011 when federal authorities and police agents arrested 49 residents in La Perla on drug-related charges.²⁸

Those that answered 'no' expressed a range of reasons why, from there not

²⁷The pets are not to be confused with the stray animals as these have collars and tags.

²⁸ Federal agents had previously not entered La Perla for 16 years, at that time proclaiming they had eliminated the drug trade in the community.

being a need for police to protect them, to the police being the ones who commit crimes. Residents expressed that there was no need for the police to come into the community for the purpose of providing safety and security because the residents “look out for each other,” saying “we take care of each other”, and that the police “don’t come down, it is ourselves” who take care of the community. Other residents took a stronger stance against the police, characterizing them as “the thieves” and three residents angrily stated that the police and the “corrupt officers break things”, “break down doors” to homes “to steal.” A resident said that the police only come when there is a crime that occurs “up there” [in Old San Juan], that they come into La Perla looking for suspects. One resident even said that a some years prior, a police officer was killed on one of the streets in La Perla; she said the police wrote it off as an accident from friendly fire, but she says that the other officers with him killed him because he didn’t want to participate in the robbing of homes. While I cannot verify the story or truthfulness of this account, it showcases the negative attitude many residents hold against the police. When the police enter La Perla, members of the community begin to shout “water, water!” and communicate via walkie-talkies as a means of alerting one another of the police presence.²⁹ One resident was more cynical in her description, saying “why would the [drug] point be here if it’s not because the police don’t come down?”

Despite the differences in opinions, residents did express La Perla was a safe place. “One can sleep with the door open here”; “Where else do you see the kids playing, riding bikes at four the morning without fear that they will be taken to an alley and assaulted?” Caldieron (2013) asked residents that in terms of criminality, how safe did they consider La Perla for their families and for visitors. 94% of respondents considered La Perla “very safe” and 4% considered it “safe” (p. 13). During an interview with a group of younger male residents that turned into a conversation, they asked if I would be returning for the San Sebastián festival the following day, I said I was and that I would also be re

turning to continue my interviews; one of them asked how I was planning on getting there [by car] and that traffic would be heavy and parking difficult to find and asked where I lived. When I mentioned it was in nearby Santurce,

he exclaimed, “Oh! You can just ride a bike here!” I had to sadly explain my bike had been recently stolen from my building, to which another man gave a half-hearted chuckle, shook his head while looking at the ground and said, “Your bike wouldn’t get stolen here. If it did, it would be made to reappear. And if it didn’t reappear, you’d be given a new one.”

La Perla appears to operate by its own set of rules as previous researchers (Caldieron, 2011) have expressed, owing to a kind of marginalization by the police and as a result of the lucrative drug trade that exists. La Perla was once the largest point for heroin trafficking; after the 2011 raid, it is no longer the largest, though it remains a large heroin and cocaine point.³⁰ Because of La Perla’s unrestricted access to the oceanfront, it not only affords traffickers with transportation routes but with a place from where to dump cadavers.³¹

Superintendent Caldero López of the Puerto Rico Police recognizes there is knowledge of the operating drug trade within the community that has never been able to be eliminated, due to a lack of control because La Perla is difficult to patrol by car, so it is challenging to maintain preventive patrolling.³² Concurring with what many residents expressed, he stated that the police do not regularly go in unless there is a complaint, and in the case of large raids, they enter in conjunction with other state, federal and law enforcement agencies. The Superintendent noted that the police, in collaboration with the federal DEA, once installed hidden security cameras in lampposts throughout the community, but these were quickly discovered by people inside the community and destroyed, fueling the distrust that exists between the residents and the police.

²⁹ Interview with Superintendent Caldero, PR Police, 2015.

³⁰ Ibid.

³¹ Ibid.

³² I’ve seen this in other areas of San Juan, when the police drive through the streets with their very bright beacons flashing, reportedly as a way to prevent or disband any crime occurring.

The drug trade remains very much alive in La Perla—I myself having witnessed drugs being sold from plastic white tackle boxes and one resident even paused mid-interview to complete a sale before returning to the interview—but Superintendent Caldero makes clear that the majority of the residents of La Perla are good people, a sentiment with which I agree. He states that the majority of those who participate in the drug trade, either by distributing or and purchasing them are outsiders from the community; inclusively a number of tourists have been arrested for buying drugs in La Perla. Ironically, La Perla remains a safe place for its residents because of the very existence of the narco-trafficking organization.

The safety and security that exists in La Perla isn't for the benefit of the community but for the benefit of the drug trade, from which then the residents enjoy a safer community and it has developed as mutually advantageous. It is to the advantage of the traffickers that La Perla be free from police rounds, pressure and supervision to be able to conduct their range of business activities, from supplying, to storing both money and merchandise, and most importantly selling, as buyers need to feel safe from getting caught and arrested. For La Perla to be police-presence-free, it also needs to be safe and free from crime (other than drug trafficking of course) so that the residents do not call or have the need to rely on the police for help. The traffickers set a kind of order within the community to ensure that the community is safe, they also do not allow or partake in other criminal activities, such as leaving a stolen car on the streets of La Perla says Superintendent Caldero, because it calls police attention.

The drug traffickers not only provide order for the community, but also provides for and help the residents; the Superintendent said that before the raid in 2011, the traffickers would host block parties and buy the residents items they needed such as medicines, washers and televisions.³³ In return, what developed is what the Superintendent calls the “town subculture” in which, when the dealers are faced with increased legal pressure, usually from a police visit to the community, they will show up at neighbors' houses and ask the residents to hold on to bags for the dealers for a short amount of time, even

a few hours, that usually contain firearms.

All this does not mean the drug traffickers hold free reign across all of the community: the drug trade is seemingly concentrated in one sector of La Perla, Lucila Silva. As one resident interviewed made clear, the neighbors of Guaipao “threw them out” of Guaipao when the trade began encroaching on their sector. There appears to be a level of respect between the two groups. It is clear that the everyday safety and security of life in La Perla is provided to the residents of La Perla by and from within the community, not by the state. Just saying that the narco-traffickers are the sole entity that provides this service would, however, be unfair. The police do intervene on occasion like when they are called in on a complaint or on a raid, though by executing these raids, the police may be protecting the safety of other residents of the city but not necessarily of the residents. But most of all, it would be dismissive of the social aspect of safety and the security the residents provide to each other by “looking out”, “taking care” of one another, and adhering to “a code,” as Ms. Arroyo Carballo described it. The security that is created through what Jane Jacobs called ‘eyes on the street’ is crucial, as the built environment and way of life in La Perla fosters an active street life where residents spend much time interacting with family members and other neighbors, could not be recreated by any other entity.

³³ Superintendent Caldero spoke about the block parties in the past tense, that they used to happen but not anymore, likely due to the tackling of the head of the organization in 2011 and perhaps as a way to keep a lower profile, though it was clear the offering of aid in the form of gifts still occurs.

The Role of Tenure Security

Though only 60% of residents in La Perla have some sort of legal documentation to their homes, *de jure* land tenure is not a concern for residents, as they have access to public services regardless of land tenure and self-improvements of houses occurred independently of land tenure (Caldieron, 2012). Caldieron (2012) found La Perla residents believe they have *de facto* land tenure because their family has lived there for generations and will receive equal compensation as landowners if bulldozing were ever to occur in La Perla (p. 62).

Since La Perla has endured changes and upgrades for over 100 years, despite several bulldozing attempts, residents have the expectation that they will not be relocated; as I experienced, the residents are proud defenders of their community and of their right to live there. Though it is not clear which came first, if perceived tenure security generated access to public services, or if increased access to infrastructure and services helped cement the perception of tenure security, the availability of the public services studies in this thesis served to formalize La Perla.

The Role of Informal Governance and Political Contact

There are a number of forces at play in the informal governance of La Perla including the community board, nongovernmental organizations and the residents themselves. When asked what person, group or entity provided the most to their community in terms of goods and services, four residents mentioned the community board and community leader, but more emphasized the residents take care of each other because there is little outside help, “we help one another”, “no one [helps us]... we don’t ask the government... we help ourselves.” The church also appears to be very involved, one resident said the church did more for the community than the government and at one point the church began a campaign for the children to learn to maintain La Perla clean.³⁴ Additionally, Hogar Padre Vernard, a nonprofit organization, provides showers, meals and medical services to the homeless who make the streets of Old San Juan their home. There does not appear to be any homelessness within La Perla.

Seven residents asserted that it was the community board and the leader who have the most power and govern La Perla, saying the board is well organized and very involved. Three residents said it was the church, one resident adding, “whatever the priest says is respected.” One resident mentioned that ‘Cara de Truck’s wife had a lot of influence in the community, though the community leader was quick to ensure me that she was not part of the board. One alluded to the role of the narco-trafficking ring in La Perla, answering the question of who has the most power and governs the community by chuckling and saying “you don’t want that answer.” Two residents also mentioned the role the community plays as well, noting they are “independent here” and the residents help themselves: “each one of us has the power.”

The community board is an active member in the community, trying to involve residents in caring for the community and raising awareness of the opportunities inside La Perla as a means of combating its negative stigma. When I visited, the board had just taken down an aboveground pool that had been set up for the children and the community often fills the colorful skate bowl, seen in Figure 41, with water to also be used as a pool. The community leader described the board as “pro-sports and culture”; in October of 2014, the community board hosted a 5K run both to raise positive awareness of the community and to raise money for the community board’s activities. The president of the board explained that their goal was to increase self-governance for La Perla and not remain dependent on government aid. He gave an example that instead of the government coming in and painting houses and structures, providing the painting supplies for the residents themselves to paint.

The community board was formed just eight years ago by the community itself and is made up of six board members, two from each of the three sectors of La Perla. Major decisions, such as the election of the board, are put to vote in the community assembly that meets periodically and where each resident is allowed an equal vote. The leader commented that the board has a good amount of power within the community and it has earned the trust of the residents. It is apparent the board is helping provide social services for the residents by hosting employment workshops, delivering groceries and host-

³⁴ Interview with Ms., Arroyo Carballo, Office of Special Communities, 2015.

ing activities for the children, all while actively engaging residents and others through social media on their Facebook page.

La Perla's proximity to major seats of power located in Old San Juan—the governor's mansion, the Capitol and the mayor's office—allow for close political contact. Due to its prime location, La Perla becomes advertising space for those running for office. Politicians offer aid or support to La Perla in returns for votes and support; for example, in 2014 a senator donated school uniforms (required at all public schools) to the community before the start of classes. Two residents mentioned politicians come to La Perla only when there are elections, but it seems their contributions are not substantial, saying “fixing the slaughterhouse doesn't do anything” and that they used to host more activities for children. One resident mentioned having seen the mayor various times and that the governor has played basketball on La Perla's court. “Mayors stick their neck out for [the residents of informal settlements] for the votes,” said Mr. Ríos Torres of the Emergency and Disaster Management Agency.



Figure 41. The La Perla skate bowl, which sometimes doubles as a community pool

³⁵ Interview with Mr. García Pelatti, Planning Board, 2015.

³⁶ Ibid.

³⁷ Interview with Superintendent Caldero, PR Police, 2015.

³⁸ Interview with Mr. Ríos Torres, Agency for Emergency and Disaster Management, 2015.

Though it was harder to engage residents on the conversation of the role of the narco-trafficking rings in La Perla, it is clear this group plays an important role in the community—the fact “that it is a place for drug sales helped to save it.”³⁵ The residents defend the drug point because the traffickers have been the ones that have helped the community throughout the years. Without the drug trade, La Perla would have been lost, as the narco-traffickers defend the community and help to ensure their water access is not shut off and they are not relocated.³⁶ It is clear the drug trade provides order in the community and also ensures access to services, as Mr. García Pelatti of the Planning Board said, “the traffickers tell them [the residents]: ‘don't pay [for services], we'll help you.’” The leader of the drug ring becomes a de facto mayor of the community because this person is the one that provides and hosts parties for the community, though since the 2011 raid the dynamic may have changed.³⁷ Though the majority of the services studied in this thesis are government-provided, the narco-traffickers appear to act as the guarantors of the services.

The Role Government-Led Efforts

Both the state and municipal governments are the main providers of public services in La Perla with the exception of safety and security. Incremental government investment in infrastructure for electricity, water, sewage, roads and garbage collection has provided residents the ability to access these services, even in the informal ways some are connected to formal grids. From the view of the government, it is better to legitimize services for the benefit of public safety; the government does not deny residents access to electricity and water because people will find a way to gain access.³⁸ As Mr. Ríos Torres put it, “if you breathe, you have access to services.”

However, many residents interviewed felt the government does little for them and their community, stating, “we don't ask the government, we help ourselves.” “It was complete neglect from the government,” said Mr. Lázaro, the

government provided infrastructure but did not assume responsibility. “This is like a republic here,” said one resident, “the government does nothing here,” said another. While that is not entirely true, the government is not readily viewed as a partner or provider for the community. The government provides electricity, water and sewage infrastructure and garbage collection, but residents express a lack of greater governmental support. When asked about the role of the government in La Perla, one resident said “they only come every once in a while,” while another commented the government “only comes to bother us.” Two residents did mention the government was more involved than before, with one of them adding suspiciously that he didn’t know why the government was making more compromises with the residents than before.”

The negative sentiment towards the government I felt while interviewing residents has to do with the problem of continuity in the government, when another administration comes in, a plan collapses and residents feel abandoned. Mr. García Pelatti noted that a proposal to build a boardwalk along La Perla that connects to a boardwalk around Old San Juan is still stalling after 10 years. Some residents feel they do not need the government to help—“with water and electricity, we’re good, the rest, we solve.”

Currently the Department of Housing, the Office of Special Communities and the municipal government are working with the community board on ways to improve the social and economic services in the community. In April 2014, a plan to bring economic opportunities to La Perla by establishing a bakery owned by the community to deliver fresh bread to residents of Old San Juan was approved.

VI. Conclusions

Informal settlements are characterized by inadequate housing, little infrastructure, poor sanitation and most notably a lack of access to basic public services. This assumption that informal communities do not have access to many services is not the case in La Perla. What I have found is an informal community that has access to the services explored in this thesis: electricity, water, garbage collection, public transportation, education, fire and rescue, and safety and security. They receive these services due to a combination of the forces explored in the literature review that includes tenure security, informal governance, political contact and government-led efforts. La Perla challenges the perception of informal settlements with a mix of formality and informality. While the city government is in charge of the garbage collection, nongovernmental groups inside La Perla along with residents provide for safety and security. Informality exists within formal systems, as some residents connect illegally to the electrical grid and water system and many do not pay for this service. Residents still receive these services regardless of whether or not they pay for access.

Beyond finding residents have access to basic services, I found La Perla to be a safe, vibrant community that residents care a lot for. Many walls and abandoned structures are covered with colorful artwork from both artists and residents that serve to not only beautify the community but fight against the image of decay, seen in Figure 42. This image held by outsiders, of a dirty, dangerous and crime-ridden place that stigmatizes the community is what the community board involves the residents in combating through hosting activities to help change this negative perception.

Several government officials told me that La Perla is better off than many other informal communities and even some public housing projects in Puerto Rico. Nevertheless, La Perla faces many challenges, though access to services is not one of them. Access to the same services afforded to ‘formal’ communities and how they received them serves to explain why La Perla has endured for over 100 years, alongside residents’ fervent defense of their community and feeling of belonging. The community leader described the resident’s love for “el barrio” as the main reason for La Perla’s survival. “How long has El

Morro (the fortress) been there,” Mr. Ríos Torres rhetorically asks, “500 years? That’s how long La Perla will be there.” Still, La Perla still faces marginalization and lacks social and economic development and greater integration into Old San Juan’s urban fabric.



Figure 42. Artwork by children at an entrance to La Perla

VII. Recommendations

The following recommendations result from the knowledge gathered through background documents and conversations with government officials and residents of La Perla. They address the infrastructure, social and economic needs of La Perla and are aimed towards all levels of government. In addressing these needs, the goal is to change the negative social imagery that has for so long been associated with the community. ‘Formalizing’ the community in more ways than one will create positive social benefits not just for its residents. Even when explicitly addressing an agency or entity, the recommendations require widespread government cooperation and must crucially involve the community through the entire planning and development process. Though the intended audience for the proposals is the state and local government, they are also for the residents because the community is the ultimate beneficiary and bearers of the burden of the results.

The nature of these recommendations and their implementation will ultimately depend on what the community wants and to what they are willing to agree. La Perla’s residents are known as faithful defenders of their community and their rights and have been doing so for generations, creating a network of self and mutual help. Beyond benefiting La Perla, these recommendations could also benefit numerous other informal settlements across Puerto Rico as well as public housing projects that face similar challenges and opportunities as La Perla.

1. Improve and expand the provision of and access to services

The residents of La Perla have access to the services studied in this thesis though the provision and quality of these is for the most part inadequate. Basic services to La Perla must be improved and expanded to ensure that not only the community’s needs are met but to ensure equity in distribution and above all, public safety. The specifics of the recommended improvements are laid out by service.

Electricity

PREPA should install meters and connect all houses to the formal electrical grid in order to improve public safety. Electricity theft in La Perla presents a public safety concern, with many houses connected with unpermitted wir-

ing. In order to improve the electric service in La Perla, the houses must be metered and legally connected to the formal system and the existing infrastructure improved by PREPA, the energy authority. Some residents are willing to pay for their share of use if it is fair. In order to do so, the electrical wiring must be reviewed, re-wired and approved by licensed electricians from PREPA, with necessary changes made to meet at least minimum safety standards in wiring and metering financed by PREPA.

In terms of billing, it is important residents be granted amnesty from back payments, and only be charged from the day their meters are installed. Residents may not be able to afford the electric bill if charged the normal rate, so efforts to charge subsidized rates available through PREPA must be made, depending on the resident's eligibility. PREPA should institute a billing service that begins by charging residents only 10% of their total invoice. This percentage charged should increase gradually, reaching 100% of the resident's electric use after an allotted period of time. This time frame must be established with the collaboration community. Increased metering must be accompanied by increased monitoring to prevent electricity theft by monitoring the usage rates of each home and preventing direct connection to power lines. This is done not only for public safety but to ensure the due diligence of PREPA's process of attending to the misuse of electric services is respected.

Repairing existing infrastructure and formally connecting houses to the electric grid provides residents of La Perla safer houses and greater legitimacy of tenure, improved service and as costumers, formal access to PREPA guidelines such as to the evidence-based process of cutting off a customer's electricity. Furthermore, PREPA gains the opportunity to improve relations with the community.

Water

PRASA should install meters and ensure homes are connected to the formal water distribution and sewage systems to ensure public safety. Improving the service of water and enforcing payment of use will likely face much resistance from the community, due to the belief by residents that their water use should be free. The goal is to repair broken and aging pipes that contribute to

wasted water and ensuring all households are connected to the formal water distribution system to ensure clean, potable water to all households and minimize possible pollution, simultaneously improving wastewater connections. Both services are under the purview of the state water and sewer authority. PRASA must begin by identifying the areas of greatest need within La Perla, but carry on and finance the improvements across the community.

Installing and repairing meters in order to ensure proper distribution of water are necessary functions of PRASA and part of this goal. As access to the water distribution system, either directly or through connected houses, has existed for decades without enforcement of regulation or payment, this will be met with resident opposition, which is why it is crucial to engage residents in conversation throughout the entire process to ensure fairness, agreement and allow the PRASA employees to enter and complete necessary work.

A payment agreement with the residents should be reached, in which they are not billed back payments, but are charged for use from when the infrastructure is in place in the entire community on an announced, agreed-upon date. A subsidized billing rate for usage will be necessary, beginning with PRASA charging residents for 10% of their use, over time increasing by fixed amounts to reach 100% of their use after an extended period agreed upon with the community.

As metered, paying customers, residents will have access to the formal procedures involved in shutting off water service, better infrastructure, safe provision of water and greater legitimacy of tenure. The meters will allow PRASA to better monitor water usage and improve water distribution and sewage infrastructure to decrease water waste and minimize pollution

Garbage Collection

San Juan should maintain the current garbage collection system and institute a recycling program. Residents are very satisfied with the recent improvements in garbage collection by the municipality of San Juan, but this service and the green garbage dumpsters installed must be maintained and not fall victim to electoral politics and administration changes. Building on an already successful

system, the municipality of San Juan should seize the opportunity to expand into recycling. Placing separate bins blue bins adjacent to the green garbage bins will ensure convenience and ease of use. The recycling would be collected using the smaller trucks similar to the ones used to collect the garbage.

Most important to increase and ensure recycling in La Perla is education of the residents as to which items are recyclable and to the importance and benefits of recycling. The recycling workshops must be led and funded by the city, with the support and collaboration of the community board

Public Transportation

AMA, the Department of Transportation, or the Department of housing should conduct further surveys and consultation with the community to determine if a market for expansion of transportation exists. An in-depth survey with the residents of La Perla can determine if there is a demand for improved public transportation. If a market need for increased transportation options exists, it does not necessarily need to be met with the AMA transit buses, as these do not traverse Old San Juan. AMA can support a route for small, private-run public shuttles known in Puerto Rico as “pisa y corre” (stop and go) that charge a dollar and serve areas and routes not serviced by buses.

Education

Governmental and nonprofit groups should increase community and social education programs for all residents. The residents of La Perla have access to the public education system and though the quality of the schools needs to be improved, it is a problem that plagues all schools under the Puerto Rico Department of Education. Residents on the other hand expressed the need for education and workshops for parents and the community. Though San Juan and the community board already host workshops on job opportunities and health, these must be expanded to include the arts, education on parenting, economic development and opportunities, safety, services and resources available to residents. Depending on the topic, these workshops can be taken on by the municipality, the state, or nongovernmental organizations.

Fire and Rescue

The fire department should institute fire safety education programs for all residents. Due to the nature of construction in La Perla, fires could be very destructive to La Perla; though the fire fighters respond to emergency calls, that same built environment prevents efficient firefighting. The fire department must then focus on preventative measures by educating the residents on fire safety and the importance of at-home fire extinguishers to prevent fires from spreading. The fire hoses owned by the residents should not be confiscated, but their need for use reduced.

Safety and Security

The police should expand their role and increase their presence in the community. When police forces executed a raid in 2011, not only did they arrest leaders of a narco-trafficking ring, they toppled the main guarantors of safety and security within La Perla. To avoid missing a valuable opportunity, the Puerto Rico and San Juan police departments must increase their presence in the community and become the providers of public safety. This will not only become a way to eliminate the drug trade by making the community unfavorable for the dealers but also decrease the residents’ reliance on the narco-traffickers as the enforcers of order.

To combat the difficulty in patrolling the narrow streets of La Perla, officers on motorcycles should do regular patrols, the same way they are done in Old San Juan. Increased presence alone will not serve to establish the police as the legitimate providers of safety and security due to the deep mistrust of the police that exists. Instituting a community policing program by expanding the role of police officers as not only law enforcers but as civil society partners of residents, through hosting community fairs or block parties, can help to change the resident’s perception of the police and expand public safety. Building a trusting relationship with the community will take time and it will not be easy due to years of strained relations between the two and a general mistrust of police officers in Puerto Rico. Maintaining a presence and avoiding leaving a power vacuum is necessary to ensure a safe and secure environment in La Perla and Old San Juan.

2. Designate La Perla a Special Planning District

Development in La Perla occurred unpermitted for decades and if formal codes were to be enforced in terms of construction, habitability, wiring and plumbing, the majority of houses within La Perla would not meet the standards. To prevent mass demolitions of homes, promote community upgrading policies and ensure public safety, La Perla must be designated a Special Planning District at the state level. The Planning Board or the Department of Housing, the latter of which is currently working on infrastructure and economic development plans with the community, should undertake this designation along with the Special Communities Office.

The Special Planning District guidelines would set minimum standards of safety within housing, infrastructure, built form and development that can be met with minimal improvements of existing structures; higher permitted standards would be required of any new construction. Changes in the built environment are being planned for and will continue to occur, but without a special status and implementation of upgrading guidelines, the improvements will remain haphazard devoid of comprehensive community goals. The Special Planning District designation for La Perla and what it entails and seeks to achieve for and within the community will require involvement from planners, government officials and the community. Extensive consultation, surveying and interviews with the residents can serve to chart the community's needs.

The unpermitted nature of construction in La Perla cannot be disregarded but integrated into future upgrading and improvements. Improving the provision of water and electricity through metering of the houses as laid out below will not be possible without adopting uniform minimum standards to safeguard public safety. Above all, the guidelines must reinforce that if any displacement occurs due to demolitions, the residents must be offered relocation options within La Perla.

3. Empower the community board to serve as representatives of the community

Every infrastructure improvement project undertaken in La Perla must have stewards to ensure that projects are effective and do not deteriorate; the community board should be the one in charge of taking on this role. By empowering the board to organize plans that benefit the residents, it allows the residents to have more agency and undertake more responsibility over their community. Legitimizing the community board in this way, through the Special Communities Office, can allow them to apply for a number of federal community development grants to implement directly on the ground in La Perla. Federal oversight of funds and auditable finances can safeguard the best allocation of funds. An empowered community board gains political leverage and a stance to negotiate with politicians and outside organizations.

4. Increase physical, cultural, social and economic accessibility

One of the greatest challenges facing La Perla is its literal separation and physical marginalization from the "formal" city. This breeds other forms of separation including psychological, social, cultural and economic. The separation presents opportunities to increase accessibility in these factors between the "formal" and "informal" divisions. Finding ways for residents, citizens, artists, tourists, nonprofit organizations and the government to work together to exemplify the assets within La Perla can increase accessibility and characteristically unite La Perla as a part of Old San Juan.

Increasing physical accessibility can be achieved by labeling La Perla and its streets on all city, tourist and Old San Juan trolley maps and by allowing the community to erect welcome signs. Distinguishing the community's rich cultural and artistic history can foment cultural accessibility between historic Old San Juan and La Perla, as its walls serve as a canvas for expression of urban and community art. Social interaction can be increased through La Perla's inclusion in Old San Juan's festivities and by hosting events in La Perla that are open to everybody. Finally, increasing the economic ties between the tourist sector in Old San Juan and La Perla can decrease the differences in income that are reflected in the built form.

5. Build trust between the government and the community

The state and local administrations, including bureaucratic agencies, need to improve their relationship with the community and build trust with its residents. By repairing illegal connections and making them safe, PREPA and PRASA can begin to build this trust. Politicians must stop treating La Perla as a commodity to be won come election time and not tie aid and community visits to political purposes; they instead must work to ensure continuity in policies and improvements. Expanding community outreach programs through consultations and workshops leads to an improved understanding of resident needs and inclusion of their view, in order to help both the community and government agencies achieve their objectives.

Residents will remain skeptical of government intentions until there is a firm and public reassurance that their homes will not be demolished and the area redeveloped, which is why transparency in decision-making on plans regarding the La Perla is crucial and must be increased.

Further Research

Though not under the purview of this research, there is little discussion of the impacts of climate change in Puerto Rico; while the entire island is at risk, La Perla is at a greater risk due to its location on an eroding shoreline. Further research should be conducted into the climate changes La Perla faces and possible mitigation and adaptation measures. Residents of La Perla are more vulnerable to the effects of climate change such as sea level rise, more powerful and frequent storms, and an increased cost of water and electricity. Climate change should play a centralized role in all the interactions and interventions with the community by all entities, both governmental and non-governmental.



Image: Graffiti art in La Perla
Source: Author

VIII. Bibliography

“¡A volar chiringa en La Perla!” El Nuevo Día. 29 March 2015. <http://www.elnuevodia.com/entretenimiento/cultura/nota/avolarchiringaenlaperla-2026758/>

Azar, Derek and David Rain. (2007). “Identifying population vulnerable to hydrological hazards in San Juan, Puerto Rico.” –*GeoJournal*. Vol. 69, No. 1/2, pp. 23-43

Banerji, Manjistha. (2005). “Provision of Basic Services in the Slums and Resettlement Colonies of Delhi”. Ensuring public accountability through community action. Institute of Social Studies Trust, New Delhi.

Caldieron, Jean M. (2011). “Residential Satisfaction in La Perla Informal Neighborhood, San Juan, Puerto Rico”. *OIDA International Journal of Sustainable Development*. Vol. 2, Issue 2, pp. 77-83.

Caldieron, Jean M. (2012). “Land Tenure and the Self-Improvement of Two Latin American Informal Settlements in Puerto Rico and Venezuela”. *Urban Forum*. Vol. 24, pp. 49-64

Caldieron, Jean M. (2013) “Safety Perception and Tourism Potential in the Informal Neighborhood of “La Perla”, San Juan, Puerto Rico”. *International Journal of Safety and Security in Tourism*. Issue 4, pp. 1-23

“Calle 13 expande a las artes plásticas el proyecto ‘MultiViral’”. El País. 27 August 2014. <http://www.elpais.com.co/elpais/entretenimiento/noticias/calle-13-expande-artes-plasticas-proyecto-multiviral>

““Cara de Truck” evade perpetua, recibe sentencia de 30 años. Noticel. 30 July 2014. <http://www.noticel.com/noticia/163903/cara-de-truck-evade-perpetua-recibe-sentencia-de-30-anos.html>

“Carmelo Anthony unveils courts”. ESPN New York. 23 September 2012. http://espn.go.com/new-york/nba/story/_id/8375291/new-york-knicks-carmelo-anthony-visits-puerto-ri-co-unveil-charity-efforts

“Desarticulan mega punto en La Perla”. Noticentro. 29 June 2011. http://www.wapa.tv/noticias/locales/desarticulan-mega-punto-en-la-perla_20110629074941.html

Dinzey-Flores, Zaire Z. (2008). “De la disco al caserío: Urban Spatial Aesthetics and Policy to the Beat of Reggaeton”. *Centro Journal*. Vol. 20, No. 2.

Edelman, Brent and Arup Mitra. (2006). “Slum Dwellers’ Access to Basic Amenities: The Role of Political Contact, its Determinants and Adverse Effects”. *Review of Urban & Regional Development Studies*, Vol. 18, No. 1, pp. 25-40.

“El arte urbano se hace fuerte en el barrio La Perla”. Primera Hora. 04 October 2014. <http://www.primerahora.com/estilos-de-vida/cultura/nota/elarteurbanosehacefuerteenelbarriolaperla-1039591/>

“Energía Eléctrica se mete en La Perla a cortar luz”. Primera Hora. 01 July 2011. <http://www.primerahora.com/noticias/gobierno-politica/nota/energiaelectricasemeteenlaperlaacortarlaluz-522180/>

“Federales ocupan La Perla”. El Nuevo Día. 29 June 2011. <http://www.elnuevodia.com/federalesocupanlaperla-1003734.html>

Guerrero, Alejandro. (2011). “Rebuilding trust in government via service delivery: The case of Medellín, Colombia”. World Bank.

- Huchzermeyer, Marie. (2008). "Slum Upgrading in Nairobi within the Housing and Basic Services Market: A Housing Rights Concern". *Journal of Asian and African Studies*. Vol. 43, No. 1, pp. 19-39
- Jha, Saumitra, Vijayendra Rao and Michael Woolcock. (2007) "Governance in the Gullies: Democratic Responsiveness and Leadership in Delhi's Slums". *World Development*. Vol. 35, No. 2, pp. 230-246.
- "Jorge Ramos went to the forbidden Puerto Rico: The Streets of La Perla". *Fusion*. 08 September 2014. <http://fusion.net/story/17294/jorge-ramos-went-to-the-forbidden-puerto-rico/>
- Lall, Somik V., Uwe Deichman, Mattias K.A. Lundber and Nazmul Chaudhury. (2002). "Tenure, Diversity, and Commitment: Community Participation for Urban Service Provision". *The World Bank*.
- Lang, Heracles C. and Lana Winayanti. (2007) "Provision of urban services in an informal settlement: a case study of Kampung Penas Tanggul, Jakarta". *Habitat International*. Vol. 28, pp. 41
- Marvel, Lucia Fuller. (2008). *Listen to What They Say: Planning and Community Development in Puerto Rico*. La Editorial, Universidad de Puerto Rico.
- Medina, Martin. (2005). "Serving the unserved: informal refuse collection in Mexico" *Waste Management & Research*, Vol. 23, No. 5, pp. 390-397
- "Notorio narcotraficante se declarará culpable en el caso de La Perla". *Primera Hora*. 06 August 2012. <http://www.primerahora.com/noticias/policia-tribunales/nota/notorionarcotraficantesedeclararaculpableenelcasodelaperla-680253/>
- "Prepa rate review could increase electricity costs by 5.6 cents per kWh". *Caribbean Business*. 04 September 2014. http://www.caribbeanbusinesspr.com/prnt_ed/prepa-rate-review-could-increase-electricity-costs-by-5.6-cents-per-kwh-10366.html
- "San Juan, Puerto Rico". *Encyclopedia of Latin American History and Culture*. Ed. Jay Kinsbruner and Erick D. Langer. Volume 5, 2nd Edition. Detroit: Charles Scribner's Sons, 2008. Pp. 718-719.
- "Sustainable slum upgrading". (2012). *Appropriate Technology*, Vol. 39, No. 4, p. 46
- UN-HABITAT. (2003). "Urban slum dwellers could double to 2 billion by 2030, UN agency says". <http://www.un.org/apps/news/story.asp?newsid=8427>
- Urban, Florian. (2015). "La Perla—100 years of Informal Architecture in San Juan, Puerto Rico". *Planning Perspectives* (ahead of print). 25 February 2015, pp 1-42.
- Vivas Maldonado, José Luis (1962). *Historia de Puerto Rico*. New York: Las Americas Publishing Co.

Image Sources

Figure 1: Google Maps

Figure 2: Google Maps

Figure 3: Wikimedia Commons, http://upload.wikimedia.org/wikipedia/commons/0/0a/LaPerla_SanJuan_PuertoRico.jpg

Figure 4: Google Earth

Figure 5: See Appendix B

Figure 6: Puerto Rico Historic Building Drawings Society, via their Facebook page, <https://www.facebook.com/pages/Puerto-Rico-Historic-Building-Drawings-Society/145605908845156>

Figure 7: La Perla Community Board, via their Facebook page, <https://www.facebook.com/juntacomunitaria.laperla?fref=ts>

Figure 8: Puerto Rico Historic Building Drawings Society, via their Facebook page, <https://www.facebook.com/pages/Puerto-Rico-Historic-Building-Drawings-Society/145605908845156>

Figure 9: La Perla Community Board, via their Facebook page, <https://www.facebook.com/juntacomunitaria.laperla?fref=ts>

Figures 10-26: Author

Figure 28: Author

Figures 30-31: Author

Figure 34: Puerto Rico Day Trips, <http://www.puertoricodaytrips.com/free-trolley-old-san-juan/>

Figures 36-37: Author

Figure 39: Author

Figures 41-42: Author

IX. Appendix

Appendix A. Interviews

The following are the questions asked during interviews with residents of La Perla and Puerto Rican government officials. For La Perla, they include the introductory statements for resident. In the case of the government officials, these questions served as a guide for the interview as the focus of the discussion varied according to their expertise.

Interview Questions: La Perla Resident (English)

Good afternoon, my name is Yesmín Vega and I'm a master's student of urban planning at Columbia University. I'm writing my thesis on provision of public services in La Perla and I was wondering if I could ask you a few brief questions about services in your community. This will only take a few minutes and if you participate, I will not ask any personal questions and you don't have to answer any questions you do not want to.

1. Do you have access to the following services and who provides the services? Do you pay for access to these services? Do you think you get quality services for what you pay? Are these services provided by the government or another entity?

Do you have access to the following services and who provides the services? Do you pay for access to these services? Do you think you get quality services for what you pay? Are these services provided by the government or another entity?											
	Access?		Pay?		Quality?				Provided by Govt?		(comments/by who)
a. Electricity	Y	N	Y	N	High	Good	Fair	Poor	Y	N	
b. Water	Y	N	Y	N	High	Good	Fair	Poor	Y	N	
c. Garbage Collection	Y	N	Y	N	High	Good	Fair	Poor	Y	N	
d. Police (safety/security)	Y	N	Y	N	High	Good	Fair	Poor	Y	N	
e. Fire and Rescue	Y	N	Y	N	High	Good	Fair	Poor	Y	N	
f. Public Transportation	Y	N	Y	N	High	Good	Fair	Poor	Y	N	
g. Education	Y	N	Y	N	High	Good	Fair	Poor	Y	N	

2. Are there any services you don't have access to that you wish you did?
3. How has access or provision of services changed/worsened/improved over the years?
4. What role do nongovernmental groups have with and in the community?
5. What person, group, or entity do you feel provides the most for your community? (In terms of goods, social services, basic services)
6. How involved are the local and state government in La Perla? Do they consult your community regarding plans or policies?
7. What person, group, or entity do you feel has the most power in this community? What person, group, or entity do you feel governs this community?

Interview Questions: La Perla Resident (Spanish)

Buenas tardes, mi nombre es Yesmín Vega y soy estudiante de maestría en planificación urbana en Columbia University en Nueva York. Estoy escribiendo mi tesis sobre la provisión de servicios públicos en La Perla y quería saber si le podría hacer algunas preguntas breves sobre los servicios en su comunidad. Esto solo tomará unos minutos y si participa, no le haré ninguna pregunta personal y no tiene que contestar ninguna pregunta que no quiera.

1. ¿Tiene usted acceso a los siguientes servicios y quién los provee? ¿Paga usted por el acceso a estos servicios? ¿Cree usted que paga por servicios de calidad? ¿Estos servicios son ofrecidos por el gobierno, o por otra entidad?

1. ¿Tiene usted acceso a los siguientes servicios y quién los provee? ¿Paga usted por el acceso a estos servicios? ¿Cree usted que paga por servicios de calidad? ¿Estos servicios son ofrecidos por el gobierno, o por otra entidad?											
	¿Acceso?		¿Paga?		¿Calidad?				¿Proveído por gob.?		(comentarios/por quien)
a. Electricidad	S	N	S	N	Alta	Buena	Satisfable	Pobre	S	N	
b. Agua	S	N	S	N	Alta	Buena	Satisfable	Pobre	S	N	
c. Colección de Basura	S	N	S	N	Alta	Buena	Satisfable	Pobre	S	N	
d. Policía (seguridad y pro	S	N	S	N	Alta	Buena	Satisfable	Pobre	S	N	
e. Fuego y Rescate	S	N	S	N	Alta	Buena	Satisfable	Pobre	S	N	
f. Transportación Pública	S	N	S	N	Alta	Buena	Satisfable	Pobre	S	N	
g. Educación	S	N	S	N	Alta	Buena	Satisfable	Pobre	S	N	

2. ¿Hay algún servicio al que no tiene acceso que desea?
3. ¿Cómo ha cambiado/ empeorado/ mejorado el acceso a o la prestación de servicios en los últimos años?
4. ¿Qué papel tienen los grupos no gubernamentales con y en la comunidad?
5. ¿Qué persona, grupo, entidad sientes provee lo máximo para su comunidad? (en términos de bienes, servicios sociales, servicios básicos)
6. ¿Cuan envuelto es el gobierno (municipal y estatal) en La Perla? ¿El gobierno consulta con la comunidad con respecto a planes o política publica que los afecte?
7. ¿Qué persona, grupo o entidad siente que tiene más poder en esta comunidad? ¿Qué persona, grupo o entidad siente que gobierna a esta comunidad?

Interview Guide: Government Official (English)

1. What services does the government provide to the residents of La Perla? Does it provide them to all residents equally?
2. How does the community gain access to these services if the government doesn't provide them?
3. Are there any basic urban services the government doesn't provide to the community?
4. Do the residents have access to the following services and who provides the services? Do they pay for access to these services? (AKA What services are provided by the government, which are provided by another entity)
 - a. Electricity
 - b. Water
 - c. Garbage Collection
 - d. Police (Safety and Security)
 - e. Fire and Rescue
 - f. Public Transportation
 - g. Education
5. How has access or provision of services changed/worsened/improved over the years?
6. How has access or provision of services changed/worsened/improved since 2011 (large DEA intervention in La Perla)?
7. What role have NGOs had in La Perla and in providing services?
8. How is La Perla governed?
9. What do you see as the future of La Perla in terms of slum upgrading/demolition/its residents?

Interview Guide: Government Official (Spanish)

1. ¿Qué servicios ofrece el gobierno a los residentes de La Perla? ¿Se les proporciona a todos los residentes por igual?
2. ¿Hay servicios urbanos básicos que el gobierno no provee a la comunidad?
3. ¿De qué manera la comunidad tiene acceso a estos servicios si no son provistos por el gobierno?
4. ¿Los residentes tienen acceso a los siguientes servicios y quién provee los servicios? ¿Pagan ellos por el acceso a estos servicios? (AKA ¿Qué servicios son ofrecidos por el gobierno, cuáles son ofrecidos por otra entidad)
 - a. Electricidad
 - b. Agua
 - c. Servicios sanitarios
 - d. Recolección de Basura
 - e. Seguridad y Protección (Policía)
 - f. Incendios y rescate
 - g. Transporte público
 - h. Educación
5. ¿Cómo ha cambiado/ empeorado/ mejorado el acceso a o la prestación de servicios en los últimos años?
6. ¿Cómo ha cambiado/ empeorado/ mejorado el acceso a o la prestación de servicios desde 2011 (gran intervención de la DEA en la Perla)?
7. ¿Qué papel ha tenido la ONG en La Perla y en la prestación de servicios?
8. ¿Qué persona, grupo o entidad (crees que) rige esta comunidad?
9. ¿Cuál cree usted que es el futuro de La Perla, en términos de mejora de barrios marginales / demolición / sus residentes?

Government Officials Interviewed

Agency	Name	Title
PREPA- Puerto Rico Electric Power Authority <i>AEE- Autoridad de Energía Eléctrica</i>	Mr. Juan F. Alicea Flores	Executive Director
PRASA- Puerto Rico Aqueducts and Sewers Authority <i>AAA- Autoridad Acueductos y Alcantarillados</i>	Mr. Alberto M. Lázaro	Executive President
PRASA- Puerto Rico Aqueducts and Sewers Authority <i>AAA- Autoridad Acueductos y Alcantarillados</i>	Mr. Gustavo Marín Ramos	Executive Director
Planning Board of Puerto Rico <i>Junta de Planificación</i>	Mr. Luis García Pelatti	President
Puerto Rico Department of Housing <i>Departamento de la Vivienda</i>	Mr. Carlos Castillo-Matos	Undersecretary for Strategic Planning
Special Communities, Office of the General Coordinator for Socioeconomic Financing and Self-Governance <i>Comunidades Especiales, Oficina de la Coordinadora General para el Financiamiento Socioeconómico y la Autogestión</i>	Dr. María Lourdes Rivera	General Coordinator
Special Communities, Office of the General Coordinator for Socioeconomic Financing and Self-Governance <i>Comunidades Especiales, Oficina de la Coordinadora General para el Financiamiento Socioeconómico y la Autogestión</i>	Ms. Carmen Rodríguez-Figueroa	Special Assistant
Special Communities, Office of the General Coordinator for Socioeconomic Financing and Self-Governance <i>Comunidades Especiales, Oficina de la Coordinadora General para el Financiamiento Socioeconómico y la Autogestión</i>	Ms. Luz Arroyo Carballo	Community Liaison, La Perla
Puerto Rico Police <i>Policía de Puerto Rico</i>	Mr. José Caldero López	Superintendent of Police
Puerto Rico State Agency for Emergency and Disaster Management <i>AEMEAD- Agencia Estatal para el Manejo de Emergencias y Administración de Desastres</i>	Mr. Miguel Ríos Torres	Executive Director

Appendix B. La Perla Population Trend

La Perla Population		
<u>Year</u>	<u>Population</u>	<u>Households</u>
1937	3,900	-
1940	4,450	-
1960	3,392	-
1970	1,829	570
1977	1,157	-
1979	1,332	524
1990	983	382
2000	338	169
2010	798	339
2013	316	161
2015	150	

Sources:

Urban (2015)

U.S. Census, as found in Marvel (2008)

PR Department of Housing Survey, as found in Marvel (2008)

La Perla Census of Population and Households, as found in Marvel (2008)

U.S. Census

ACS 5-Year Estimates, 2009-2013

Interview with Mr. Castillo, Department of Housing, 2015

Appendix C. Resident Responses

Electricity

Do you have access to electricity?

Yes 16

No 0

No answer 0

Do you pay for electricity?

Yes 9

No 5

No answer 2

What is the quality of electricity?

High 2

Good 7

Fair 1

Poor 1

Other 0

No answer 5

Water

Do you have access to water?

Yes 16

No 0

No answer 0

Do you pay for water?

Yes 5

No 9

No answer 2

What is the quality of the water service?

High 1

Good 8

Fair 0

Poor 2

Other 0

No answer 5

Garbage Collection

Do you have access to garbage collection service?

Yes 11

No 0

No answer 5

What is the quality of the garbage collection service?

High 3

Good 8

No answer 5

Public Transportation

Do you have access to public transportation?

Yes 10

No 4

No answer 2

Education

Do you have access to public education?

Yes 14

No 0

No answer 2

What is the quality of the public education?

High 0

Good 0

Fair 2

Poor 1

Other 0

No answer 13

Fire and Rescue

Do you have access to fire & rescue service?

Yes 8

No 2

No answer 6

What is the quality of the fire & rescue services?

High 1

Good 0

Fair 1

Poor 1

Other 0

No answer 13

Security

Do you have access to security service (provided by police)?

Yes 5

No 8

No answer 3

Appendix D. School Comparison Chart

	State Average			Abraham Lincoln Elementary			Dr. José Celso Barbosa Secondary			José Julián Acosta Theater Secondary			
	2011-2012	2012-2013	2013-2014	2011-2012	2012-2013	2013-2014	2011-2012	2012-2013	2013-2014	2011-2012	2012-2013	2013-2014	
Spanish	Average Proficiency %			Average Proficiency %			Average Proficiency %			Average Proficiency %			
	3rd	58%	56%	55%	63%	59%	42%	-	-	-	-	-	-
	4th	50%	54%	50%	37%	88%	55%	-	-	-	-	-	-
	5th	45%	49%	48%	55%	48%	33%	-	-	-	-	-	-
	6th	50%	53%	49%	76%	69%	63%	-	-	-	-	-	-
	7th	39%	40%	39%	-	-	-	43%	36%	32%	78%	91%	83%
	8th	43%	41%	41%	-	-	-	10%	26%	38%	87%	78%	84%
	11th	40%	44%	40%	-	-	-	0%	12%	20%	100%	94%	100%
English	Average Proficiency %			Average Proficiency %			Average Proficiency %			Average Proficiency %			
	3rd	53%	52%	53%	52%	73%	11%	-	-	-	-	-	-
	4th	37%	41%	39%	21%	42%	27%	-	-	-	-	-	-
	5th	42%	45%	43%	60%	38%	17%	-	-	-	-	-	-
	6th	50%	49%	46%	47%	8%	37%	-	-	-	-	-	-
	7th	33%	33%	29%	-	-	-	52%	10%	6%	100%	50%	44%
	8th	37%	38%	38%	-	-	-	28%	32%	15%	100%	92%	78%
	11th	41%	42%	43%	-	-	-	25%	59%	46%	100%	100%	100%
Math	Average Proficiency %			Average Proficiency %			Average Proficiency %			Average Proficiency %			
	3rd	70%	67%	69%	74%	68%	79%	-	-	-	-	-	-
	4th	55%	53%	54%	63%	42%	64%	-	-	-	-	-	-
	5th	42%	41%	44%	75%	33%	17%	-	-	-	-	-	-
	6th	16%	17%	19%	6%	8%	32%	-	-	-	-	-	-
	7th	8%	9%	8%	-	-	-	0%	0%	0%	46%	61%	9%
	8th	9%	10%	10%	-	-	-	0%	0%	0%	5%	30%	11%
	11th	9%	9%	10%	-	-	-	0%	18%	26%	94%	77%	68%
Science	Average Proficiency %			Average Proficiency %			Average Proficiency %			Average Proficiency %			
	4th	66%	68%	67%	79%	100%	82%	-	-	-	-	-	-
	8th	27%	29%	26%	-	-	-	0%	0%	33%	79%	84%	51%
	11th	44%	43%	48%	-	-	-	-	71%	74%	94%	94%	100%