

# Data Collection and Analysis of Citizen Feedback on the Pedestrianization of Heneral Luna Street in Intramuros

## Executive Summary

The pedestrianization of Heneral Luna street is part of the agenda of the Intramuros Administration in order to protect the structural integrity of the San Agustin church, promote tourism, and preserve the historical and cultural value of Intramuros. To inform policy and implementation, an online survey and consultations were conducted to understand public sentiment about this initiative. Using Pol.is as the primary data collection tool and Facebook comments as a secondary feedback collection tool, the survey ran for a total of 16 days, from July 7, 2021, to July 23, 2021. The Pol.is tool has a total of 47 initial statements related to the main topic, and respondents voted either 'agree', 'disagree', or 'pass' for each statement.

An opening online citizen assembly was held on July 7, 2021, wherein the Intramuros Administration presented its plans, the survey objectives, and the survey process. A total of 1014 respondents submitted their votes via Pol.is, and a total of 433 qualitative comments were scraped from Facebook and Pol.is' open message box. After tabulation and analysis, the results were presented in the closing citizen assembly on July 28, 2021.

Using Principal Components Analysis (PCA) via Pol.is report page, 497 out of 1014 voters were categorized under two opinion groups. These are groups of voters who tend to vote similarly on certain statements. The two opinion groups were labeled Group A (n=126) "Working in Intramuros" and Group B (n=365) "Visitors of Intramuros" because the most defining metadata is the percentage of respondents working in Intramuros. 73% of Group A voters are working in Intramuros while only 22% of Group B voters are working in Intramuros. In general, Group A voters tend to be more hesitant, if not against the pedestrianization of Heneral Luna street because it can make driving cars within Intramuros difficult. Group B voters, on the other hand, tend to agree to

pedestrianization of streets in Intramuros, as well as development of public spaces such as parks.

There are several points of consensus among all voters. One, there is collective disagreement in notions that roads are made for cars only, that riding bicycles are for men only, that riding bicycles makes one look poor, and that parks are a waste of public space. Similarly, there is collective agreement on the benefits of walking and biking, that walking and biking should not be dangerous, and that there should be places where children can walk and play safely.

The 47 initial statements were analyzed using Association Rules Mining and showed that disagreement with pedestrian-only streets is associated with concerns about it negatively affecting businesses, increased difficulty in driving around Intramuros, and road safety and security.

Finally, qualitative comments showed related key topics outside of the Pol.is voting platform to be: 1. tourism-related concerns; 2. concerns about parking spaces; and, 3. secure walking areas in Intramuros.

Combined quantitative + qualitative analysis highlighted top concerns to be:

1. Safety and security when walking
2. Factors affecting business and tourism (parking spaces, sidewalk vendors, etc.)
3. Special attention to PWDs and senior citizens
4. Access to public transportation
5. Alternate routes and parking spaces if Heneral Luna street is closed
6. And an emerging conversation about preserving culture and history, while embracing development.

## Survey Report

### Context:

The pedestrianization of Heneral Luna street is part of the agenda of the Intramuros Administration in order to protect the structural integrity of the San Agustin church, promote tourism, and preserve the historical and cultural value of Intramuros. To inform policy and implementation, an online survey and consultation was conducted to understand the sentiments of the citizens about this initiative.

### Objectives of the Survey:

- Understand citizen sentiment and opinion re: pedestrianization of Heneral Luna street in Intramuros.
- Identify key points of conversations and opinion groups.
- Highlight key concerns about the initiative, to inform policy and implementation.

### Methodology



### Feedback Collection Process and Instruments

The primary feedback collection tool for this topic is [Pol.is](#). As a secondary feedback data source, Facebook comments on related posts were scraped.

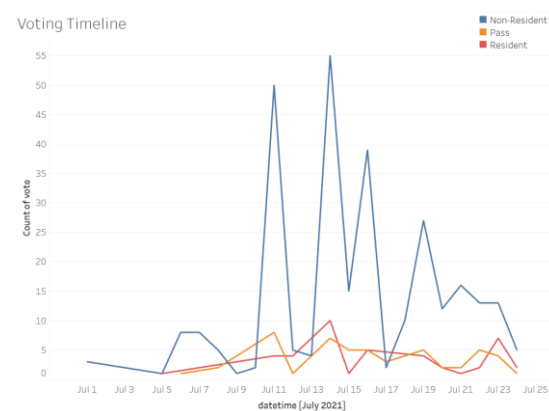
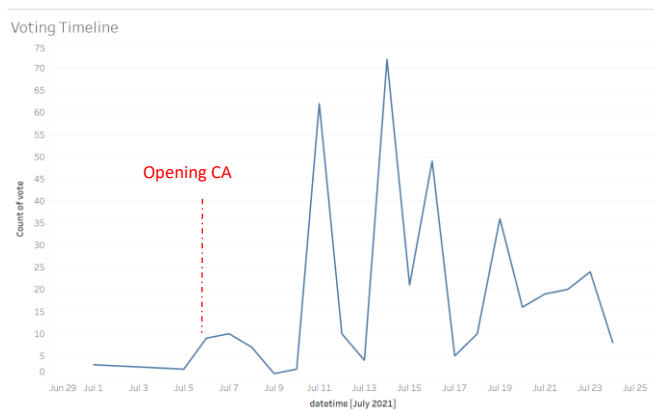
### Pol.is Statements

The Pol.is survey for this topic has a total of 47 topic-related statements, 8 of which are metadata. The statements are in English, with a Filipino translation. Respondents voted either agree, disagree, or pass, for each statement. The complete list of statements can be found [here](#).

## Voting Summary

- Voting ran from **July 7, 2021, to July 23, 2021** (16 days).
- **1014** total voters were counted, **497** of these were grouped.
- There are a total of 48 statements
- **20,392** votes were cast for all statements.
- An average of **20.11** votes cast per voter.

## Voting Timeline

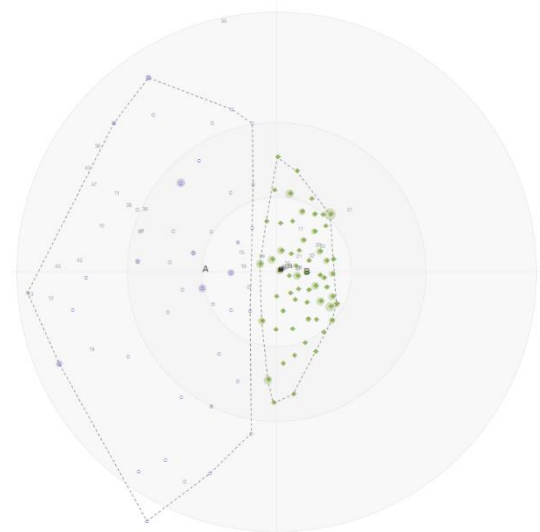


## Opinion Groups Identified

Two “opinion groups” were identified based on voting patterns. These are groups of respondents who tend to vote similarly on a number of statements. Identifying opinion groups informs the administration of the specific concerns of specific sectors in the population.

Using Principal Components Analysis (PCA), two opinion groups, Group A and Group B, emerged.

Visually, we can see that Group A is more diverse and ‘spread out’ compared to Group B.



### What do these opinion groups look like?

The most distinct difference between Group A and B based on metadata is the ratio of working in Intramuros versus non-workers in Intramuros. Therefore, **Group A** (with 126 respondents) is generally labeled as “Working in Intramuros” while **Group B** (with 365 respondents) is generally labeled as “Visitors of Intramuros”.

GROUP A “Working in Intramuros”		GROUP B “Visitors of Intramuros”	
18% YES	Resident of Intramuros	6% YES	
53% YES	Owns a car	40% YES	
12% YES	Owns a business in Intramuros	5% YES	
73% YES	Working in Intramuros	22% YES	
66% YES	Frequent Visitor of Intramuros	74% YES	
42% YES	Owns a bike/e-scooter	47% YES	
45% YES	Uses public transportation to get around Intramuros	45% YES	

### Unique Voting Patterns of the Opinion Groups

GROUP A:

STATEMENT	GROUP A			GROUP B		
	AGREE	DISAGREE	PASS	AGREE	DISAGREE	PASS
Cars are the MOST important means of transportation in Intramuros.	61%	21%	18%	3%	94%	2%
We CAN build new roads inside Intramuros	60%	26%	14%	13%	75%	11%
I want to live in a car-free city	39%	45%	18%	73%	15%	11%

GROUP B:

STATEMENT	GROUP A			GROUP B		
	AGREE	DISAGREE	PASS	AGREE	DISAGREE	PASS
It's alright to close streets to motorized vehicles	50%	32%	17%	94%	3%	1%
Cars are the most important means of transportation in Intramuros	54%	27%	18%	3%	94%	2%
Parking lots and streets are more important than parks/public spaces	48%	28%	22%	4%	93%	2%
Cars are needed on all streets in Intramuros	45%	39%	15%	2%	96%	1%
Pedestrian-only streets would make it more difficult to get to work*	45%	33%	20%	1%	92%	5%

\*Please note that while group B strongly disagreed with this statement, the ratio and overall number of respondents working in Intramuros is still higher in Group A.

**Points of Consensus**

Majority of the voters agreed/disagreed with the following statements:

AGREE	DISAGREE
Biking or walking is a good way to take care of errands close to home. (96% agree)	Roads were made for cars only (85% disagree)
My community would be a better place to live in if bicycling was safer and more comfortable. (94% agree)	Riding a bicycle is for men only (95% disagree)
Walking should not be dangerous (97% agree)	Riding a bicycle to work makes you look poor (94% disagree)
Riding a bicycle should not be dangerous (95% agree)	Streets are not for people (83% disagree)
I want my city to have many places where children can walk and play safely. (94% agree)	Parks are a waste of space (86% disagree)

percentage in the table above refers to percentage of all voters, regardless of opinion group.

## Statement Relationships

All 47 Pol.Is statements were analyzed using Association Rules Mining / Apriori algorithm to find associations between statements based on voting patterns from 933 voters (null votes filtered out).

As a guide, the following key statements/statements of interest were used to direct the apriori algorithm.

Statement #0 – Resident (metadata)

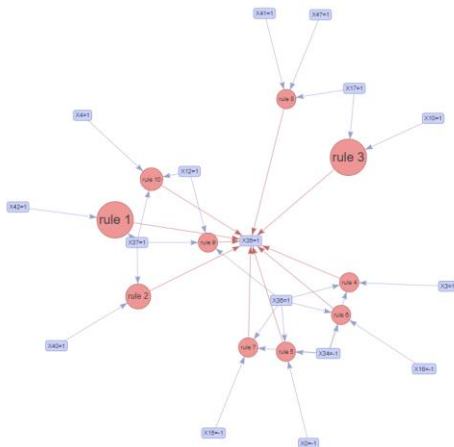
Statement #3 – Working in Intramuros (metadata)

Statement #35 – Walking on a street is dangerous (flagged as divisive)

Statement #32 - It is alright to close streets to motorized vehicles (initial statement)

Statement #36 - Roads are no place for people to walk on (initial statement)

With the key statements as consequent for the algorithm, the following statement associations were mined:



### ASSOCIATION #1

Respondents who **agreed** with the following statements:

Statement code	Statement
X37	"Bikes should NOT be ridden on the road"
X42	"Pedestrian-only streets makes it difficult to go to work"
X40	"Parking lots are more important than public spaces"
X10	"Roads are designed for CARS."
X17	"It's difficult to drive in Intramuros."

tend to agree with the statement:

*"Walking on a street is dangerous."*

## ASSOCIATION #2

Respondents who **agreed** with the following:

Statement code	Statement
X12	"Cars are needed on all streets in Intramuros"
X13	"Cars are the most important means of transportation in Intramuros."

And **disagreed** with the statements:

- X33 "Pedestrian-only streets would improve my business."
- X22 "Some Intramuros roads should be allotted as protected pedestrian lanes for safer walking and cycling."

tend to disagree with the statement:

*"It is alright to close streets to motorized vehicles."*

## ASSOCIATION # 3

Respondents who **agreed** with the following:

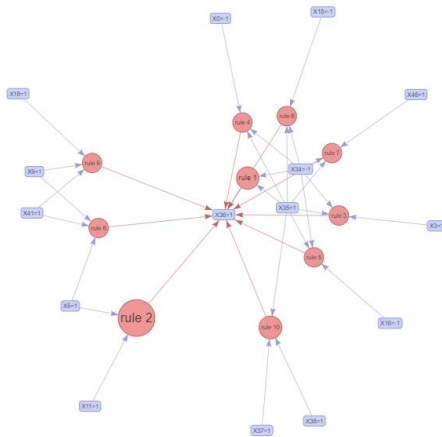
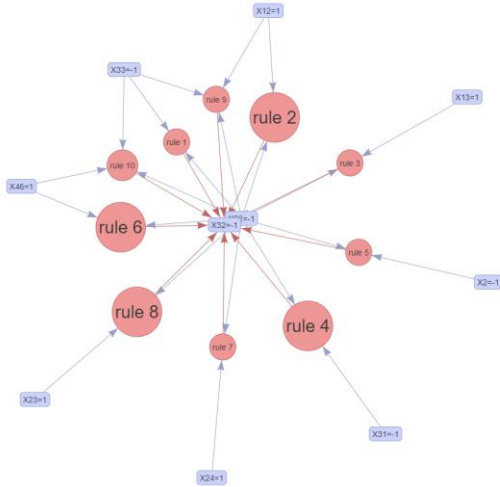
Statement code	Statement
X35	"Walking on streets is dangerous"
X11	"Roads are made for cars only"
X5	"I work in Intramuros"

And **disagreed** with:

- X34 Pedestrian-only streets improve tourism

tend to agree that"

*"Roads are NO PLACE for people to walk on."*



## Mining Topics from Qualitative Data

Outside of the 47 initial statements from Pol.Is, qualitative feedback from related Facebook posts were scraped and analyzed using Topic Modelling. This will help decision-makers identify the key sub-topics related to a primary topic (in this case, pedestrianization of General Luna street) discussed in social media platforms such as Facebook.

125 comments\* from Facebook were mined over the voting time period, while there are 308 qualitative comments\* received from Pol.Is. \* comments with complete thought and contains suggestions/articulation about the topic.

Key topics mined from qualitative feedback are the following:

Thematic analysis (5 topics, 10 words, 100 iterations, 50 optimization intervals)

Topic Models	Topic Words	Topic Distribution
1-factors affecting tourism	cars, traffic, manila, public, transport, tourism, good, tao, structures, establishments	28.76%
0-designated parking spaces	streets, parking, city, area, pedestrian-only, visitors, initiative, walled, experience, spaces	28.42%
3- secured walking area	road, sasakyan, walking, idea, agree, tourists, hindi, open, kalsada, safe	17.71%
4-provision for pedestrian lanes	pedestrian, street, luna, vehicles, gen, allowed, proposal, general, lane, zones	14.81%
2-Pedestrian and bicycle-oriented spaces	streets, people, walk, pedestrians, heritage, bike, friendly, roads, gawin, lanes	10.30%

#### General Observations with Pol.Is vs Facebook Qualitative Comments:

- Suggestions can be a bit extreme on Facebook compared to Pol.Is qualitative comments. (e.g. close entire Intramuros to motorized vehicles versus in Pol.Is wherein responses are more specific on which roads they suggest to close.)
- Comments in Pol.Is are more detailed especially when it comes to disagreements and concerns regarding the policy.

#### Spotlights:

1. **(In general) Very strong agreement on making Heneral Luna a pedestrian-only street (and its benefits for tourism and preservation of history and culture).**
2. 400+/1000+ are grouped. There is a diverse pattern among voters, pointing to specific, individual concerns.



3. While the disagreement/hesitation regarding the policy is in the minority, it is important to zoom-in to the concerns of Group A because Group A voters are workers, business owners, and residents of Intramuros.

**PRIMARY CONCERNS (Combined from Pol.Is votes and Qualitative Feedback):**

1. Security and safety when walking (e.g. well-lighted street, no flooding, safety when walking at night, etc.)
2. Pedestrian-only streets can negatively affect businesses in Intramuros.
3. Parking space/access of those working inside Intramuros, visitors, especially senior citizens and PWDs.
4. Better access to public transportation.
5. If Heneral Luna street will be pedestrian-only, what are the alternatives for those who will be affected? Alternative routes?
6. [growing conversation] It's more important to develop Intramuros rather than considering the historical value of its streets.

## Reflections from the Closing Citizen Assembly

### On: Results of the Survey and Concerns Presented

1. The results and concerns echo the observations of the Intramuros Administration.
2. Stakeholders present [Zoom] raised concerns on safety issues such as the presence of informal settlers and children asking money from tourists, and pedicabs from outside Intramuros. Similarly, stakeholders expressed support for accredited pedicabs and *kalesas*. This primarily echoes the qualitative analysis from data scraped in social media.
3. There is public support behind the pedestrianization of Heneral Luna street. However, the concerns raised will be forwarded to the concerned decision-makers to ensure the inclusivity and effectiveness of the policy implementation.

Links to Closing Assembly Recording: <https://fb.watch/7hAcJK9hm/>

## Integrating Citizen Feedback in Decision Making and Monitoring Policy Implementation

Integrating citizen feedback in local government/organizational decision making can help to ensure an inclusive and effective policy implementation. The following are tips and suggestions when incorporating citizen feedback into operations and decision-making.

- ✓ The choice of feedback collection platform determines the kind of feedback you collect. The following are some observations on the quality of feedback data collected from Facebook and Pol.is:
  - While social media provides a wealth of feedback data from stakeholders, it may not necessarily represent all sectors. Some respondents may also be hesitant to voice out concerns publicly.
  - Concerns and disagreement with the policy is more voiced out via Pol.is.
  - Understanding the reasons behind voters' disagreement with a policy is a crucial first step in addressing key concerns and getting them to support the policy later on.
- ✓ Citizen sentiments change over time and can be correlated with activities, events, and initiatives of the Intramuros Administration and its partners.
- ✓ Feedback data provides decision-makers another layer of insight as to which initiatives work, and to what extent.
- ✓ Individual experiences from the ground, when systematically collated and analyzed vis a vis other project data and local government records, provide powerful, first-hand insight.
- ✓ There are different sources of feedback data that can be used for decision making. Some examples are:

- Social Media (Qualitative feedback data can be analyzed via NLP, Topic analysis on collected comments to show key discussion topics);
  - Conduct a survey with pre-determined questions/statements using online tools like Pol.is, online forms, CloudCT, etc.;
  - Paper-based survey in strategic locations (e.g. Barangay halls) for areas with no internet connection.
  - SMS or voice-based surveys.
- ✓ A final reminder: When collecting feedback data, be careful with false and malicious feedback that aims to influence the output. As best practice, check the feedback collection platform's security, the demographic of the voters, and the time frame of data collection.

Additional credits to: Dr. Lany Maceda ([llmaceda@bicol-u.edu.ph](mailto:llmaceda@bicol-u.edu.ph)) for the qualitative analysis and Engr. Lenidy Mañago ([legma.engineeringconsultancy@gmail.com](mailto:legma.engineeringconsultancy@gmail.com)) for the report.

**END OF REPORT**

Revised: 8/11/2021