

# Topics Brainstorming

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## 1 Idea 1: How Decriminalization of Adultery Affects Compensation

In May 2020, Taiwan Judicial Yuan announced Interpretation No. 791, declaring the crime of adultery against the Constitution. The announcement generated wide discussion in society, with some critics suggesting that the decision was destroying marriage's last line of defense. While this comment may be an exaggeration, the Interpretation did in some way remove the protection for marriage by the public power. What this interpretation did not remove, however, was the protection by Civil Law. The aggrieved party can still ask for compensation for the damage incurred by their spouses and the other person involved.

The question I want to explore in the research is the impact of this announcement made by the Grand Justices. The first direction is to understand the change in the amount of compensation in civil litigations. I expect the plaintiff would ask for more compensation from the defendants in order to "compensate" for their feeling of not being able to incur a penalty. On the other hand, I expect the judges would decide on a greater amount of compensation, to correct the "balance" affected by the decriminalization. The expectation stems from the "anchoring effect" in behavioral economics, which claims that people tend to make decisions around past pieces of information. In this case, the plaintiffs' and the judges' sense of justice would likely revolve around the past judgments.

Since the first direction involves the collection and interpretation of a good number of judgments, it may be difficult to execute in a short time of a semester. In the case of hardship, I have another direction to explore, which is the change in the marriage pattern influenced by the Interpretation. Would a couple be less likely to get married because of less protection for their marriage? Or would couples be more likely to get divorced because the process no longer involves the complicated steps of collecting evidence?

These questions are important because judicial processes are a crucial part of people's life. If the judges are likely to be influenced by behavioral bias, then we should pay attention to its causes and minimize the possibility for the biases to appear. Additionally, adultery is still considered a crime in many other regions in the world, e.g., the Philippines, Saudi Arabia, and some states in the US. In the twentieth and twenty-first centuries, there is a world trend to decriminalize adultery and this trend is considered to be continued. The experience in Taiwan can serve as a lesson for future policymaking.

For both directions, I want to use regression discontinuity to measure the impact. To measure the change in the amount of compensation in civil litigation, I would like to use the Query System for Judgment to extract the judgment

related to affair and damage; whereas for the change in marriage and divorce rate, I would like to use the data from Department of Household Registration, which provides yearly and monthly detailed statistics for the married couple in different counties.

## **2 Idea 2: Climate and Crime**

From 1895 to 1945, Taiwan was under Japanese rule. During this period, the major industry in Taiwan was still agriculture. The dependence on agriculture and the lack of water conservancy facilities made the island's economy susceptible to the variation of weather; whereas the lack of income stability may lead to people to commit more crimes. The question I want to explore, then, is how the large variation in precipitation can raise crime rates, and how long after the drought or flood would the crime rate starts to climb and climax. Additionally, I would like to measure the effectiveness of the water conservancy facilities built by the Japanese government and see if the construction of those facilities helps stabilize the income and the motivation to commit crimes.

This question is important because, in today's world, there are still regions relying on agriculture as their main source of income. Without effective facilities and policies, the instability of income may cause the crime rate to rise and further elevate to political turmoil. Furthermore, by investigating this question, we can extend the study of the importance of the construction of water facilities from the economic dimension to the social dimension.

In Japanese Colonial Taiwan, the weather was recorded in detail. In Taiwan Sotokufu Annual Report, there are monthly total precipitation and highest and lowest temperatures. Furthermore, the daily newspaper, which has been digitalized, records major disasters. There was also detailed documentation of the typhoons passing through Taiwan each year, including the casualties, the number of collapsed houses, etc. As for the data on crimes, I plan to use the Taiwan Crime Statistics, published every year between 1905-1942, where there are the numbers of crimes including theft, robbery, and gambling, etc.

Since weather and precipitation are exogenous, the endogeneity problem should not be too much of a concern in this research. To see the impact of weather on crime rates, I plan to use a similar technique in measuring the impact of the business cycle. Since each disaster hits different parts of Taiwan, I can do a difference-in-difference to compare the change in crime rates, and add in a variable of water-related facilities.

## **3 Idea 3: The Impact of the Hsuehshan Tunnel on Wages and Prices**

Connecting the largest city in Taiwan, Taipei, and its neighboring county, Yilan, the Hsuehshan Tunnel was inaugurated in 2006 after 15 years of construction. The goal of the construction was to improve the external access to Yilan county and stimulate the economic development of the region. Before the tunnel was constructed, people had to spend on average two hours traveling from Taipei to Yilan, but the route through the tunnel cut the time in half. In the economics textbook, the construction of roads lowers transaction costs, which would encourage trade between the two places. Theoretically, the prices in the two places would converge. Therefore, I want to test whether the theory is empirically correct by examining the changes in prices after the construction of the tunnel.

This question is important because digging a tunnel is a massive project that takes years and a great amount of fund. Before governments make the decision, they have to understand what impact on trade the project may have. The trade theory provides a framework, but considering the complicated factors in real life, it is worth examining its correctness by looking at a concrete example.

I want to combine the analysis with geospatial analysis, calculating the average time it takes from each town in Yilan to travel to Taipei (and vice versa) with and without the tunnel, and use it as the transaction cost. Then, I would like to compare the change in transaction cost to the change in the average price level in each town.

The challenge in this project is likely to be the data. There are three main possibilities for the price data: First, I am considering using the wages of the workers as the price since its data is documented in more detail. Secondly, I am exploring the possibility to use the data from the receipts to understand the average prices of a meal in each town. Finally, following the famous Big Mac Index by the Economist, I would like to use the average price of a specific good that is very common everywhere, for example, the price of Gan Mien - cooked noodles - and - Lu Rou Fan - braised pork on rice.