

Unveiling the 2022 Iran Protests: Insights from HRANA's Dataset*

Analyzing Civil Unrest, Government Crackdowns, and Public Dissent Through Statistical Estimates

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The 2022 Iran protests were a significant period of civil unrest that brought attention to social inequality, political repression, and human rights violations. However, limited official data on the protests is available, which means we have to rely on estimates from organizations like the Human Rights Activists News Agency (HRANA). In this paper, we have analyzed a dataset compiled from HRANA's reports to provide insights into the dynamics of the protests, the extent of government crackdowns, and the scale of public discontent.

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*Code and data are available at: <https://github.com/mehrnoush68/WomenLifeFreedom.git>

1 Introduction

On 16 September 2022, Mahsa Amini, a 22-year-old woman died under police custody in Iran. Reportedly, she was arrested because of not wearing her hijab (headscarf) properly. While officials claimed she died from a heart attack, her family disputed this. CCTV footage showed her collapsing at a “re-education” center. Iranians, especially on social media, demanded justice using hash tags like #MahsaAmini. The incident highlighted concerns about women’s rights and government oppression in Iran, drawing international attention and calls for accountability (CNN 2022).

There have been protests in Iran due to various issues such as gender inequality, political oppression, and economic hardships. These issues were further amplified by the tragic death of Mahsa Amini. The protesters, under the banner of “Zan, Zendegi, Azadi” (Women, Life, Freedom), expressed their dissatisfaction with the government. However, there is no official data about the number of casualties, arrests, and other important metrics. To analyze the dynamics of the protests, the government’s response, and the extent of public discontent, this paper uses data compiled by the Human Rights Activists News Agency (HRANA) (Oh 2022).

(Oh 2022) used in this analysis provides significant insights into the 2022 Iran protests. The data was collected over 158 days and documented 530 protesters, 71 children, and 70 security personnel killed. Additionally, it recorded the involvement of 144 universities and 165 cities in the protests. The number of individuals arrested was 19763, and 723 were students. The data also revealed that the total number of deaths was 671, with 79% being protesters, 10.6% children, and 10.4% security personnel. Moreover, the ratio of universities to cities involved in the protests ranged from 0 to around 0.87. These numbers highlight the severity of the protests, the widespread dissatisfaction among the Iranian public, and the notable participation of students in the movement.

To further understand “Women Life, Freedom” movement, in [Data](#) and [Results](#), I talk about the nature of the data obtained and analyze the results garnered from the data with suitable tables and charts. Next, [Discussion](#) provides further insights and future areas of study. Finally, [Conclusion](#) summarizes my main findings.

The graphs and tables in this paper were created in R Studio using R (R Core Team 2023) and the analysis in a Quarto document. The analysis was conducted with the use of the `ggplot` (Wickham 2016), `tidyyverse` (Wickham et al. 2019), `knitr` (Xie 2021), `readr` (Wickham, Hester, and Bryan 2024), `kableExtra` (Zhu, Travison, and Tsai 2024), `janitor` (Firke 2023), `tibble` (Müller and Wickham 2023), `arrow` (Richardson et al. 2023) and `dplyr` (Wickham et al. 2023) packages.

2 Data

The dataset used in this analysis comprises estimates compiled by HRANA (Oh 2022), documenting various aspects of the 2022 Iran protests. This includes statistics on casualties, arrests, protests, and involvement across different cities and universities. While these estimates provide valuable insights, it's important to note that they may not capture the full scope of the protests due to limitations in data collection methods.

Table 1 provides a snapshot of the dataset, including the date, number of protesters killed, number of protests, number of universities involved, number of cities involved, total number of individuals arrested, and number of arrested students.

Table 1: Ten Random Entries Compiled By HRANA

Date	Protesters.Killed	Protests	Universities	Cities	Arrested	Arrested.students
2022-10-12	243	409	70	109	5700	161
2022-10-23	249	538	91	115	12575	212
2022-11-05	318	857	134	136	14802	397
2022-11-13	341	920	138	140	15820	445
2022-11-16	362	977	140	144	16033	462
2022-12-30	508	1230	144	161	19199	683
2023-01-07	517	1241	144	163	19262	696
2023-01-20	525	1260	144	164	19546	713
2023-01-21	525	1260	144	164	19546	713
2023-01-24	527	1260	144	164	19571	717

Figure 1 illustrates the trend in the number of protests and the total number of protesters killed over 158 days. The left panel shows the number of protests recorded each day, while the right panel displays the total number of protesters killed on those respective days. This visual representation helps in understanding the dynamics between the intensity of protests and the level of violence during the specified period. It is important to mention that there was a significant rise in the number of deaths on September 30th. The number of individuals killed during the protest increased from 122 on the previous day to 226, which is a considerable spike. This sudden increase highlights the unpredictable nature of the situation and the extreme level of violence that took place during that critical moment in the protest movement.

After demonstrators came out in Zahedan to protest the reported rape of a local girl by a police official, the regime responded with gunfire on September 30, 2022. (Afary and Anderson 2022, December 2)

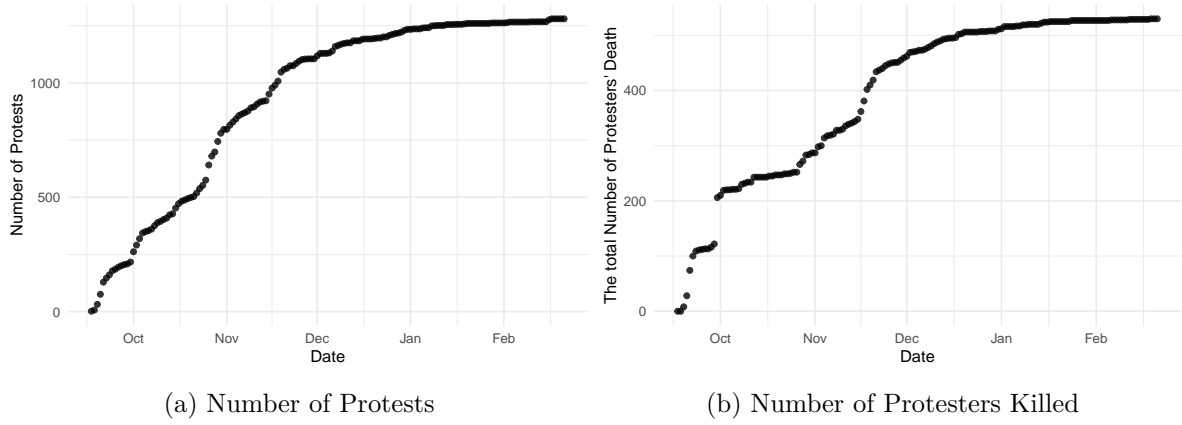


Figure 1: Number of Protests and Protesters Killed In 158 Days

Figure 2 illustrates the dynamics of arrests during the 2022 Iran protests over a period of 158 days. The x-axis represents the timeline, spanning from the start to the end of the protest period, while the y-axis denotes the number of arrests.

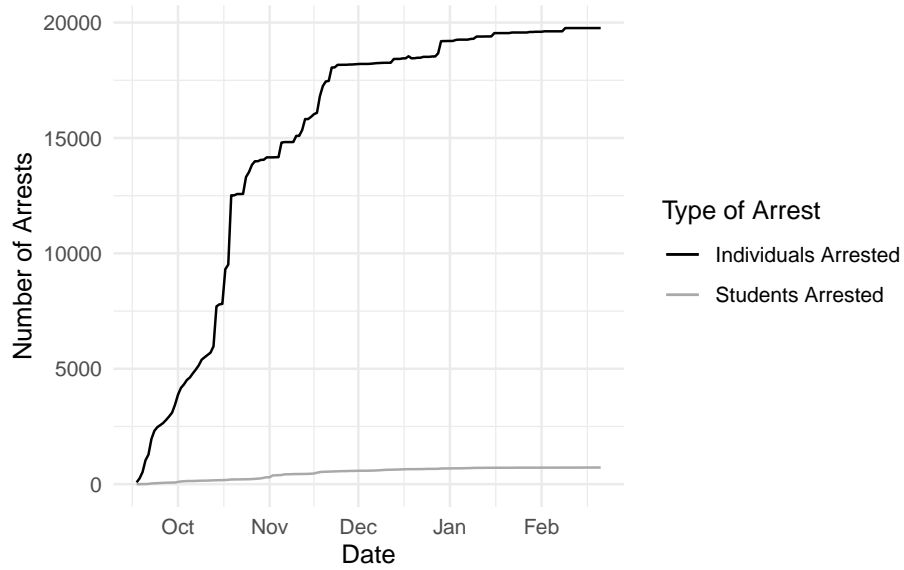


Figure 2: Number of Individuals and student Arrested in 158 Days

Figure 2 features two lines: one depicting the cumulative count of individuals arrested (denoted by “Individuals Arrested” in black), and the other showing the cumulative count of students arrested (denoted by “Students Arrested” in dark gray). The plot provides a visual comparison between the total number of arrests and the subset of arrests involving students, offering insights into the extent of student involvement in the protests and the overall scale of government crackdowns during the observed period.

Figure 3 illustrates the cumulative count of arrests and detainees identified over time during the protests. Detainees are people who were held in custody temporarily for less than 24 hours, while arrests consist of individuals who may still be in prison. By tracking both metrics, we can gain valuable insights into the authorities' response to the protests and the way they treat individuals involved. The area chart displays the progression of these two metrics, providing insights into the trend of arrests and detentions throughout the specified period. The light gray area represents the cumulative count of individuals arrested, while the dark gray area represents the cumulative count of detainees identified.

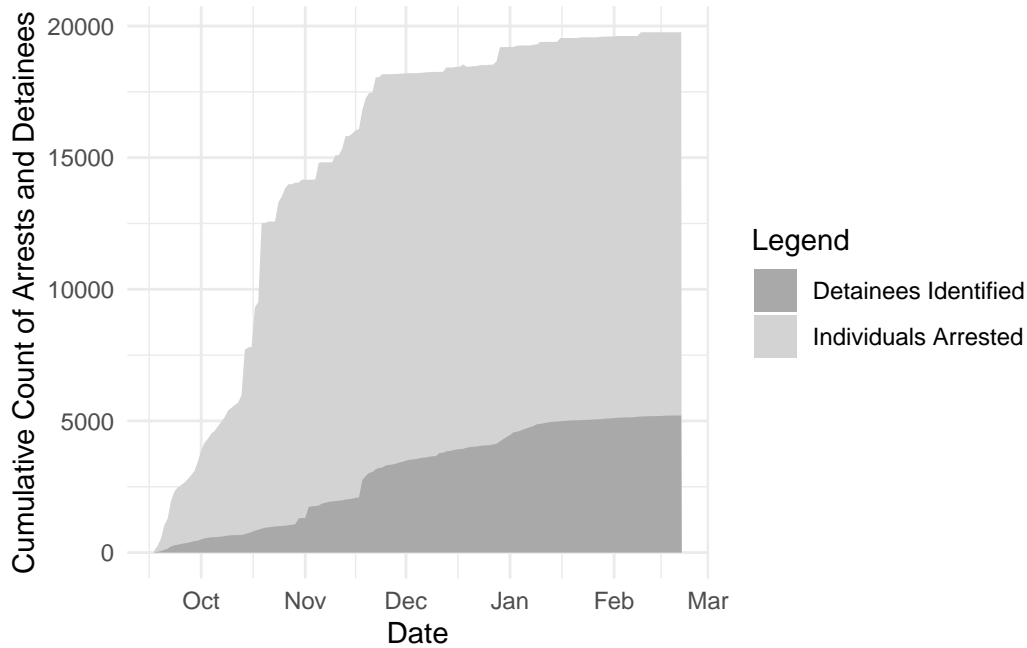


Figure 3: Cumulative Statistics of Arrests and Detainees

3 Results

Based on the analysis, the number of protests has continuously increased over a 158-day period, indicating persistent dissatisfaction among the public. Additionally, the dataset displays significant variations in the intensity of protests across different cities and universities, implying regional differences within the protest movement.

Figure 4 shared valuable insights regarding the changing dynamics of protester fatalities over a period of 158 days. The data shows that the number of protester deaths fluctuated from day to day, indicating varying levels of intensity in the conflict or protests. Some days had a high number of deaths (such as September 30th), while there were no deaths or even a decrease

in deaths on other days. This data can provide useful insights into the dynamics of the conflict, helping us to understand trends, identify critical periods of escalation, and evaluate the effectiveness of interventions aimed at reducing violence and protecting civilians.

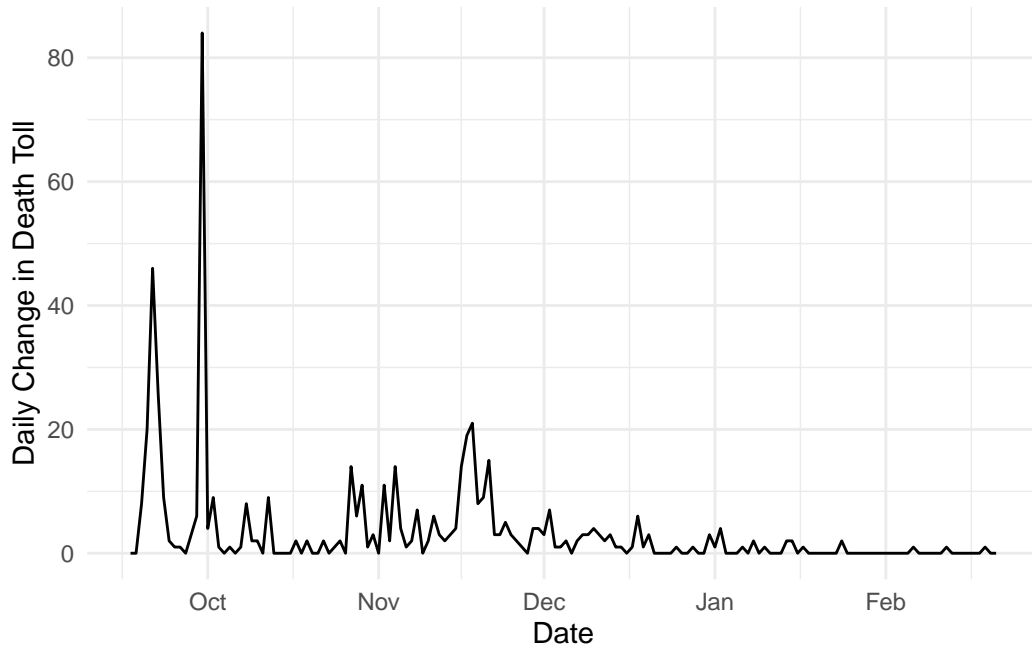


Figure 4: Daily Change in Death Toll of Protesters in 158 Days

Figure 5 shows the percentage breakdown of deaths among protesters, children, and security personnel during the 158-day protest period. According to Figure 5, out of the 671 deaths that occurred during a specific timeframe, the majority (approximately 79%) were protesters. Unfortunately, children also suffered significant losses, accounting for around 10.6% of the total deaths. Security personnel represented a slightly smaller proportion, comprising approximately 10.4% of the fatalities. This visualization highlights the need to protect vulnerable groups affected by the ongoing conflict, especially protesters and children.

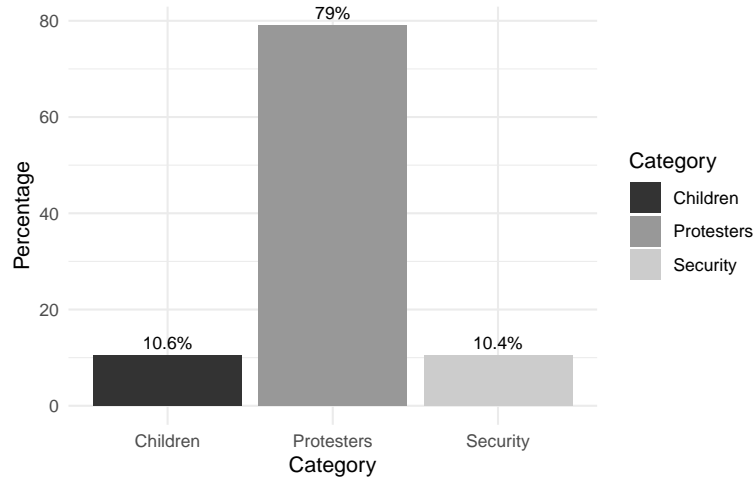


Figure 5: Percentages of Protesters, children and Security Death in 158 Days

To analyze the involvement of cities and universities over time, I created Figure 6 to illustrate how the proportion of universities to cities involved in protests changes over time. According to the dataset, the cumulative count of cities involved in the protests increased steadily over the 158-day period. It started in 2 cities and progressively rose to 221 cities by the end of the protest period.

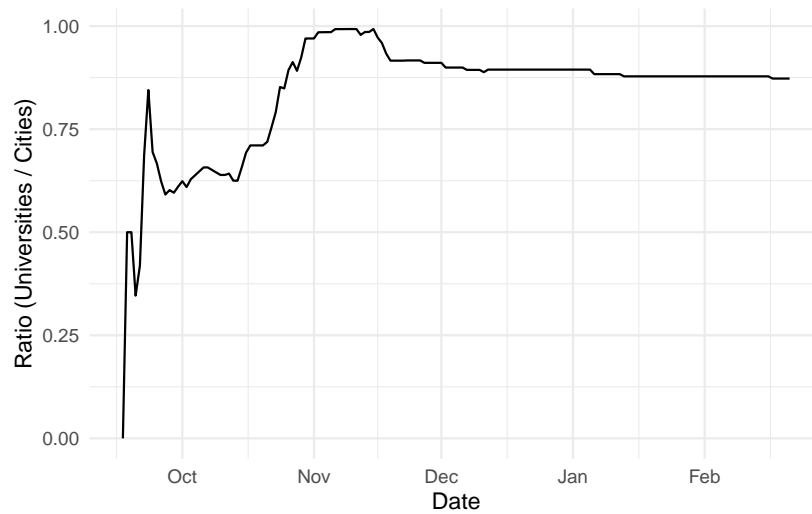


Figure 6: Ratio of Universities to Cities Involved in 158 Days

In Figure 6, Each point on the plot represents a specific date, and the y-axis represents the ratio of universities to cities involved. For example, if the ratio is 0.5 on a certain date, it means that there are, on average, half as many universities involved in protests as there are cities. Based on this ratio, we can observe that there were initial changes in the ratio of universities to cities involved in protests, ranging from 0 to around 0.85. However, there is an overall increasing trend in the ratio, suggesting that more universities are getting involved relative to the number of cities involved in protests. Towards the end of the data, the ratio stabilizes around 0.87 to 0.88, indicating that the rate of increase in university involvement might have slowed down, reaching a plateau. Although there are changes in the ratio over time, there is still an upward trend in the level of university involvement relative to the cities involved. This data suggests a gradual increase in university involvement in protests, which could be influenced by various factors such as changes in university policies, the progression of the protest movement, and the dynamics of activism within different regions.

Overall, Figure 6 provides valuable insights into the geographical and educational dynamics of the protest movement, demonstrating that the protests were widespread and sustained over the observed period.

4 Discussion

4.1 Human Rights Implications of the 2022 Iran Protests

The conclusions presented in this paper are alarming and highlight serious concerns about the government's response to protests and their use of excessive force against demonstrators. By examining the arrests made during the protests, it has been found that a small number of students were arrested, which raises questions about the fairness and legality of police practices. To prevent such instances from happening again, it is essential to have independent oversight and accountability mechanisms in place. Researchers and activists have an important role to play in advocating for justice, accountability, and the protection of fundamental freedoms by documenting and analyzing human rights violations during times of civil unrest. There is a need for ongoing research to monitor human rights in unstable political contexts, such as Iran, with a focus on promoting accountability and upholding international human rights standards.

4.2 Beyond Mahsa Amini: Exploring Gender Inequality and Activism

The tragic death of Mahsa Amini was a stark reminder of the gender inequality and human rights violations that exist in Iran. Her case highlighted the systemic challenges faced by women in Iranian society, particularly regarding their rights and freedoms. The incident, allegedly caused by the government's strict enforcement of moral codes, prompted outrage and condemnation in Iran and internationally.

Iran has long been criticized for its treatment of women, with numerous reports documenting discrimination, restrictive laws, and social norms that curtail women's autonomy and agency. Amini's death catalyzed renewed scrutiny of these issues, prompting widespread calls for accountability and justice.

The case of Amini has sparked a wave of activism among both ordinary citizens and activists in Iran. This has resulted in a range of activities such as public demonstrations, online campaigns, and debates, all of which challenge the current state. Women's rights activists have been particularly vocal in calling for reforms and better protection against violence and discrimination. Amini's death resonated deeply on the global stage, sparking solidarity movements and garnering attention from human rights organizations, governments, and advocacy groups worldwide. The international community condemned the Iranian government's response to the protests and called for an end to the violence and repression against women.

Her death holds great significance beyond the recent protests in Iran. It highlights the broader issues of gender inequality, political repression, and human rights violations in the country. Her death underlines the urgent need for reform and systemic change to tackle the root causes of gender-based violence and discrimination. Amini's legacy lives on as a symbol of resilience and resistance, inspiring continued activism and advocacy for women's rights in Iran and worldwide.

4.3 The Importance of Accurate and Comprehensive Data

The availability of accurate and comprehensive data is crucial in comprehending civil unrest. This paper emphasizes the difficulties arising from the lack of official data about the 2022 Iran protests. It highlights the reliance on estimates from organizations such as the Human Rights Activists News Agency, highlighting the need for more precise and comprehensive information. This is especially crucial when analyzing the dynamics of protest movements, comprehending the underlying factors that drive mobilization, and assessing the impact of government responses. Therefore, future research should explore alternative methods of collecting data and evaluate the effect of data gaps on the accuracy and reliability of findings.

4.4 Regional Differences within the Protest Movement and Strategies for Fostering Constructive Dialogue

The intensity of protests varies across different cities and universities, highlighting the importance of comprehending socioeconomic and political factors that drive mobilization. Policymakers and activists need to understand these underlying grievances to promote social justice. Future studies could investigate these factors further and explore strategies for fostering constructive dialogue and reconciliation in divided societies. Recognizing the dynamics of the protest movement and addressing regional differences can help to promote a more inclusive and equitable society.

4.5 Limitations and Future Research

Although the HRANA dataset offers valuable insights, it has limitations in its data collection methods. Future research should improve data quality and expand the scope of analysis to include additional socioeconomic and political variables. The results emphasize the extent and persistence of public opposition during the 2022 protests in Iran. This is evident from the growing frequency of protests and the cumulative number of arrests and detainees. However, it is necessary to conduct a more in-depth analysis to understand the root causes behind these trends and their possible impact on future sociopolitical developments in Iran.

4.6 Conclusion

This paper sheds light on the complex dynamics of the 2022 Iran protests, drawing on data compiled by the Human Rights Activists News Agency (HRANA) (Oh 2022). Through careful analysis, I have revealed significant trends and insights regarding the extent of public discontent, the government's response, and the far-reaching sociopolitical implications of the protests.

During a period of 158 days, a series of protests took place, which resulted in a tragic outcome. In total, 671 people lost their lives, including 530 protesters, 71 children, and 70 security personnel. This means that protesters make up a significant 79% of the casualties, while children and security personnel accounted for 10.6% and 10.4%, respectively. These numbers highlight the devastating human cost of political unrest and the need for peaceful and constructive dialogue. Moreover, The participation of 144 universities and 165 cities highlights the broad scope of the movement, which includes people from different demographics and regions in Iranian society. The ratio of universities to cities involved in the protests, which ranges from 0 to approximately 0.87, reflects the evolving nature of activism and dissent across educational and urban landscapes. The arrest of 19,763 people, among them 723 students, highlights the severe measures taken by the government and the challenges faced by protesters who are trying to express their dissent. These numbers are a stark reminder of the pressing need to address the root causes of gender inequality, political oppression, and human rights violations in Iran.

Moving forward, it is essential that we remain vigilant, monitor the situation closely, and advocate for justice and accountability in the country. We can achieve positive sociopolitical change by amplifying the voices of the marginalized, advocating for reforms, and upholding international human rights standards. Together, we can build a more equitable and just society that benefits all.

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