

EFFECTS OF THE MAD COOL MUSIC FESTIVAL ON THE PRICES OF TAXI AND PHV SERVICES IN THE CITY OF MADRID

25 October 2023



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October 2023

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INDEX

1	<i>Introduction</i>	4
2	<i>MAD COOL: PHV Pricing Festival</i>	5
3	<i>PHV service prices increased up to fivefold during MAD COOL</i>	9
4	<i>Prices of PHV services were more than twice as high as taxi prices during MAD COOL</i>	12
5	<i>During MAD COOL, prices for PHV services doubled for other non-festival routes</i>	16
6	<i>Conclusions</i>	18
	GAMES ECONOMICS	19
	Authors	20

1 Introduction

1. How does a major event affect the prices of Private Hire Vehicles (PHV) services? The MAD COOL music festival, whose last edition was held in Madrid at the beginning of July 2023 and which attracted more than 65,000 daily attendees, offers us a natural experiment to analyse this question. This report analyses the evolution of prices for trips to and from the MAD COOL festival in different PHV operators and taxis during July 7 and 8, 2023. The report also analyses trips between other areas of Madrid outside the festival to verify if their prices are affected by the celebration of the event.
2. The report concludes that, during the festival, prices increased both for trips to and from MAD COOL and for other non-festival trips in the city of Madrid. During the festival, the prices of PHV services increased by an average of two to four times for trips to and from the MAD COOL festival. In contrast, taxi prices increased by only around 20% compared to their average, due to the longer trip times at certain times with longer delays. In addition, the prices of PHV services for other trips outside the festival also increased by an average of two to three times.
3. The application by PHV operators of the so-called "dynamic prices", which fluctuate at different times of the day, resulted in a substantial variability of prices, compared to the stability of taxi prices. At the start of MAD COOL, people paid up to €93.30 for a PHV service, while the same trip at the same time by taxi was priced at €37.15. In other words, the price of a PHV was two and a half times the price of a taxi for the same trip.

2 MAD COOL: PHV Pricing Festival

4. The sixth edition of the MAD COOL music festival was held from 6 to 8 July 2023, in Madrid, in the southern neighborhood of Villaverde. The venue gates opened each day at 5 pm and closed at 2 am, after the last concert. The festival drew in between 65,000 and 70,000 attendees. Even though Madrid City Council's mobility plan already foresaw an attendance of 70,000 people each day, the public transport infrastructure to get to and back from the festival (subway, commuter rail and bus shuttles) proved insufficient and thousands of people opted for taxi and Private Hire Vehicles (PHV) services. This generated long waiting lines and sharp price hikes for PHV services.¹
5. Friday, July 7th, six in the evening: The first chords of "I Summon You", a song by the Texas indie-rock band Spoon, started to play on the main stage of MAD COOL 2023. As the first festivalgoers started to arrive, prices for PHV services started to surge. By seven in the evening, a ride from Calle Atocha (in downtown Madrid) to the MAD COOL venue (12 km) cost €36.04 on UBER versus €19.60 for a taxi. UBER had increased its minimum price by more than two times and a half.
6. By one in the morning, the British folk rock band Mumford & Sons ended their concert with the prophetic "I Will Wait": It was time to patiently wait for the ride back home. At three in the morning, a ride from MAD COOL to Plaza de Castilla, in northern Madrid (23 km), cost €93.30 on BOLT compared to €37.15 for a taxi. BOLT had increased its minimum price by more than four times.

*Cause I will wait, I will wait for you
And I will wait, I will wait for you
And I will wait, I will wait for you
And I will wait, I will wait for you
"I Will Wait" (2012), Mumford & Sons.*

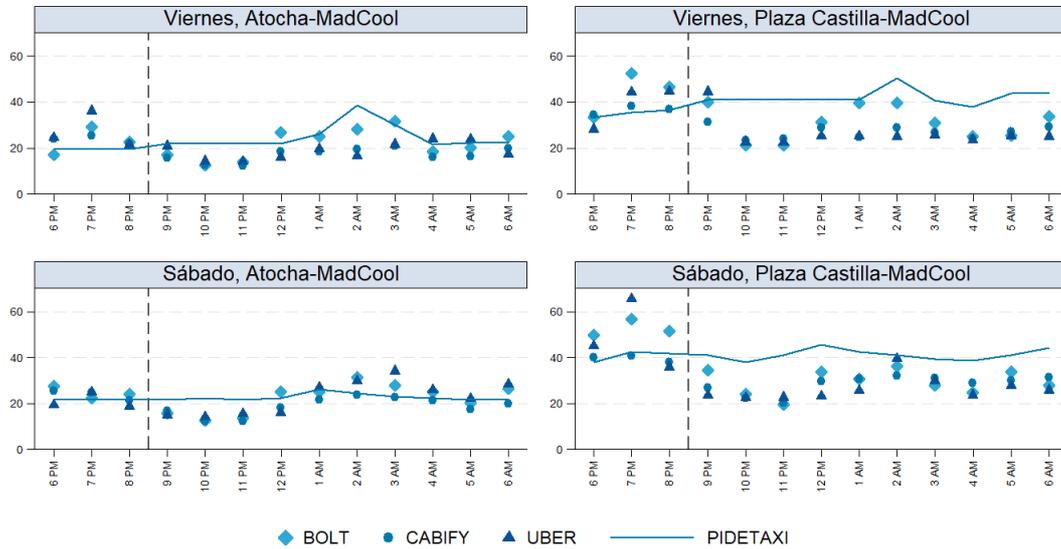
¹ "Caos a la salida del MAD COOL: coches que no llegan y precios desorbitados para llegar a casa", EL PAIS, July 7, 2023. Available at: <https://elpais.com/espana/madrid/2023-07-07/caos-a-la-salida-del-mad-cool-coches-que-no-llegan-y-precios-desorbitados-para-llegar-a-casa.html>

7. On Saturday, July 8th, history repeated itself: At 6 pm, while the sentimental pop of American duo Sylvan Esso played on the main stage of MAD COOL, prices for PHV services skyrocketed again. Once again, UBER set new highs: The price of a ride from Plaza de Castilla to the MAD COOL venue reached €65.46 on UBER, almost three times its minimum price. The price for a taxi at the same time was €42.60.
8. At the dawn of Sunday, the veteran band Red Hot Chili Peppers ended their concert with “By The Way”. Before the encores, the crowd began to leave the venue in order to secure a ride back home. At three in the morning, the price of a ride from the MAD COOL venue to Calle Atocha reached €43.48 on CABIFY. CABIFY prices increased by more than two and a half times. The price for a taxi remained practically unchanged at €23.20.

*Get there quick
By street but not the freeway
"By The Way" (2002), Red Hot Chili Peppers*

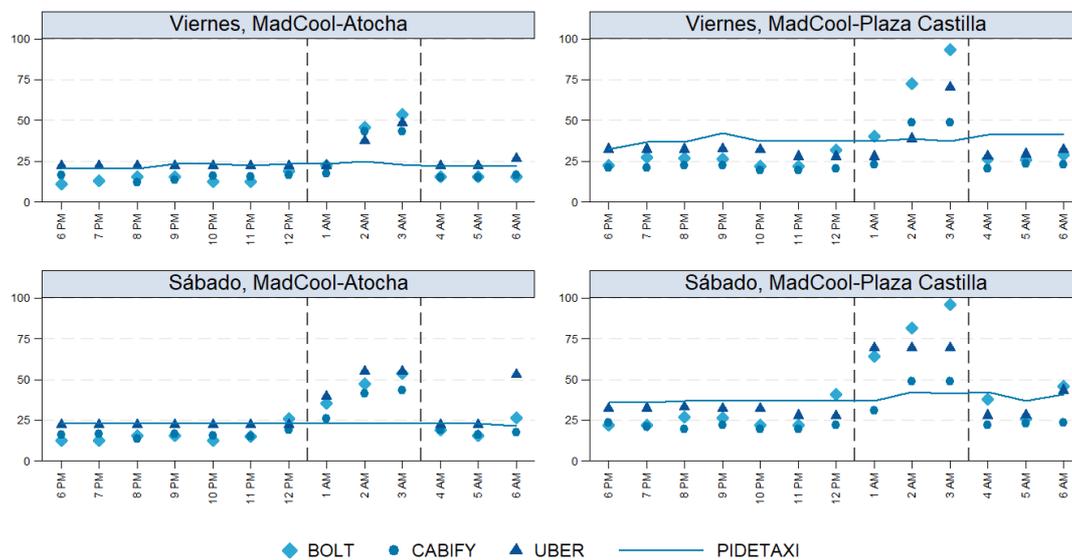
9. Meanwhile, what was going on in the rest of Madrid? The rest of Madrid was not oblivious to the festival. PHV ride prices in the rest of Madrid increased at the same hours as those rides with origin and destination in MAD COOL. At seven in the evening on Friday, a ride from Calle Atocha to Calle Velázquez (both in downtown Madrid) cost €10.38 on UBER, more than double the price of a few hours later (€5.21 at ten o'clock at night). At three in the morning on Saturday, a ride from Calle Velázquez to Calle Atocha cost €12.45 on BOLT, more than double the price of a few hours earlier (€5.05 at eleven o'clock at night). The rest of Madrid had caught on to the PHV price festival.
10. Sunday, July 9th, four in the morning. Night falls in Madrid. The lights of the 2023 edition of the MAD COOL festival are turned off. The PHV price festival is over.

Figure 1. Prices of the routes to MAD COOL



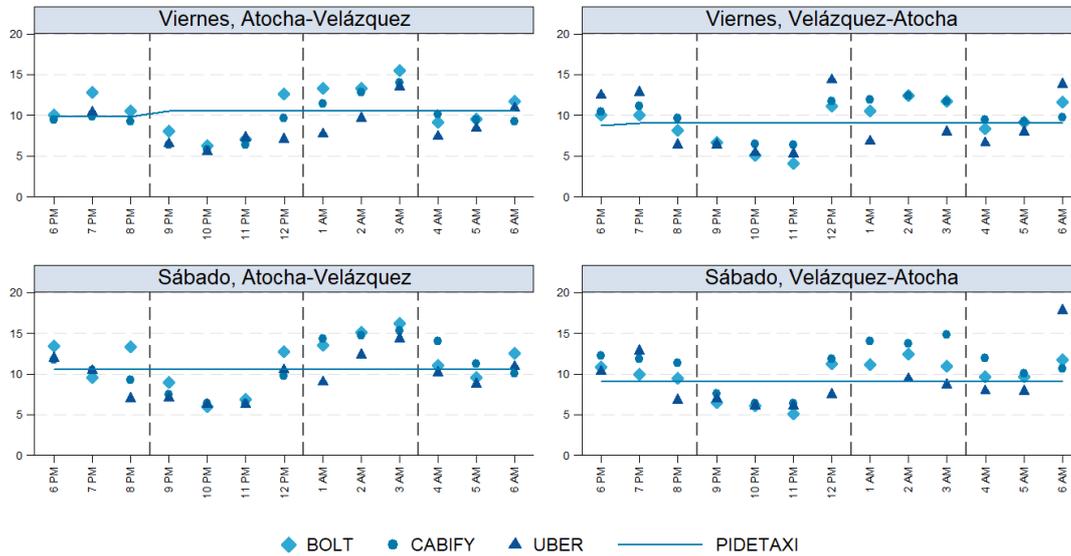
Source: Own elaboration based on prices obtained from UBER, BOLT, CABIFY and PIDETAXI apps during July 7 and 8 and July 8 and 9 between 6 p.m.- and 6 a.m.

Figure 2. Prices of the routes with origin in MAD COOL



Source: Own elaboration based on prices obtained from UBER, BOLT, CABIFY and PIDETAXI apps during July 7 and 8 and July 8 and 9 between 6 p.m. and 6 a.m.

Figure 3. Non-MAD COOL route prices



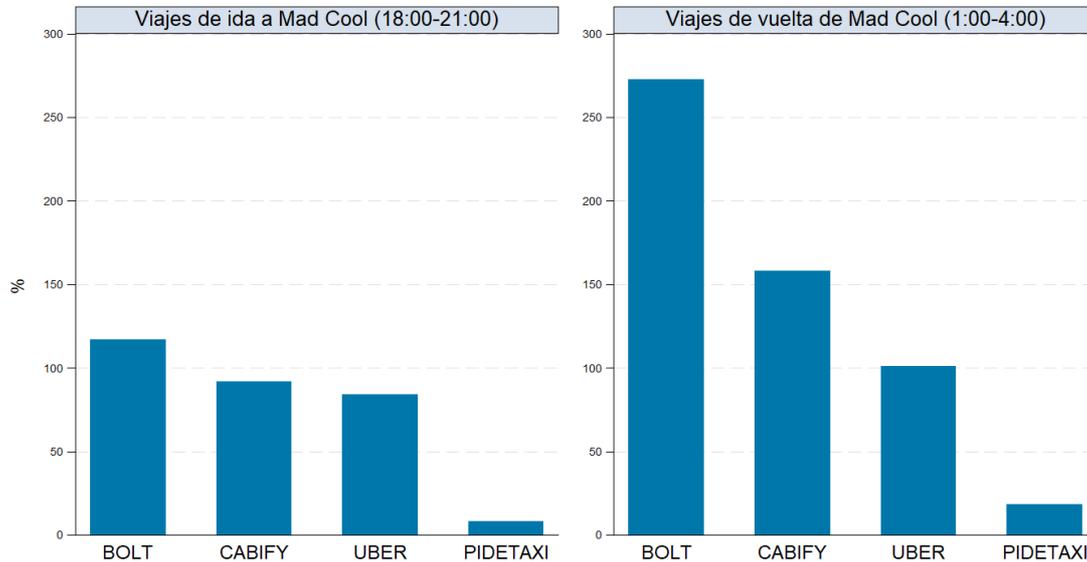
Own elaboration based on prices obtained from UBER, BOLT, CABIFY and PIDETAXI apps during July 7 and 8 and July 8 and 9 between 6 p.m. and 6 a.m.

11. To recap, the MAD COOL effect on PHV service prices can be summarized as:
 - i. **Prices of PHV services multiplied by up to five times during MAD COOL.** On average, CABIFY, UBER and BOLT prices increased by two times on arrival at the festival and by two to four times on departure. Taxi prices only increased, on average, by less than ten percent on the way into the festival and by less than twenty percent on the way out.
 - ii. **Prices for PHV services were more than twice as high as taxi prices during MAD COOL.** PHV prices to MAD COOL were on average between 10% and 20% above taxi prices. PHV prices back from MAD COOL were, on average, between 30% and 90% above taxi prices.
 - iii. **During MAD COOL, the prices of PHV services doubled in other routes outside the festival.** Between 1 a.m. and 4 a.m., the MAD COOL departure time, prices for routes between Atocha and Velázquez Streets, both in the centre of Madrid, were multiplied by two and a half times for BOLT, by two times for CABIFY and almost by two times for UBER.

3 The prices of PHV services increased up to five times during the MAD COOL

12. The prices of PHV services with origin and destination in MAD COOL multiplied on average, in the inbound and outbound hours, between two and four times with respect to the minimum prices, but even multiplied by five times. Meanwhile, taxi prices barely varied between ten and twenty percent with respect to the minimum prices, due to changes in the traffic situation.
13. Arrival prices to the festival doubled in all PHV operators and departure prices were, on average, between two and four times the minimum prices. A trip from Plaza de Castilla to MAD COOL, which cost a minimum of €22.35 on UBER, came to cost €65.46 one way and €70.10 on the return trip (more than three times the minimum price). In contrast, taxi price for the same trip ranged from €33.55 to €42.6.
14. The prices of the three PHV operators increased considerably:
 - i. Between 6 p.m. and 9 p.m., prices for PHV services on one-way trips to MAD COOL almost doubled for all operators (average increase of 117% for BOLT, 92% for CABIFY and 84% for UBER) (Figure 4).
 - ii. Between 1 a.m. and 4 a.m., prices for PHV services on MAD COOL return trips increased two to four times (average increase of 273% for BOLT, 158% for CABIFY and 101% for UBER) (Figure 4).
15. On the other hand, taxi prices hardly changed: they only increased by an average of 8% for one-way trips and 20% for return trips, compared to the minimum price (Figure 4).

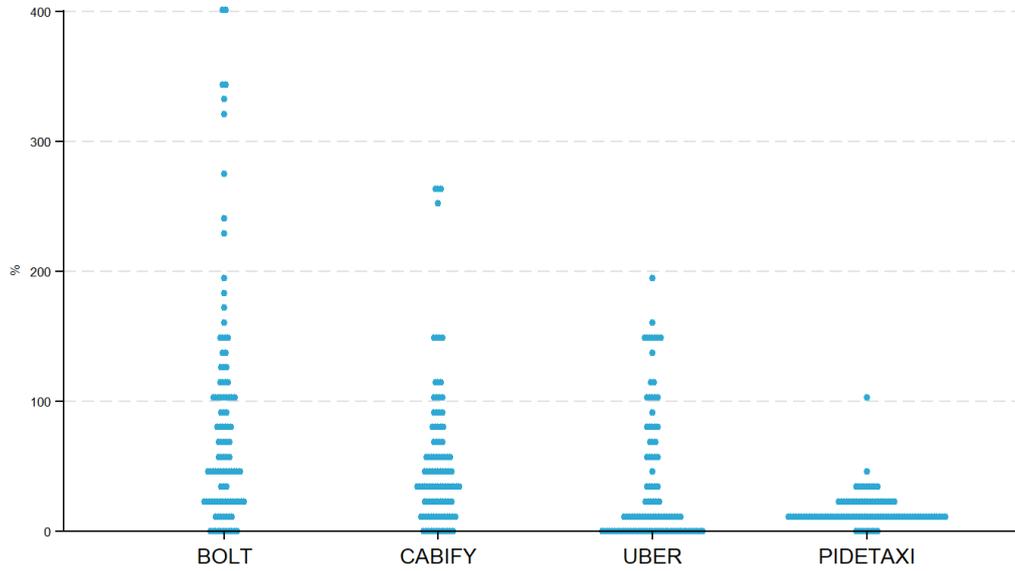
Figure 4. Average price increase for round-trip travel to MAD COOL



Source: Own elaboration based on prices obtained from UBER, BOLT, CABIFY and PIDETAXI apps. Average of surcharges (with respect to the minimum for that route in that operator) for each trip.

16. The dispersion of prices for PHV services with origin and destination in MAD COOL was much greater than the dispersion of prices for the same taxi trips (Figure 5). The price of the same trip was multiplied by five in BOLT; by three and a half times in CABIFY; and by three times in UBER.
17. Taxi prices increased by an average of ten to twenty percent. Exceptionally, two trips multiplied the minimum price by one and a half and two times respectively, due to the fact that the estimated duration of the trips was much longer than usual (39 min vs. 13 min and 49 min vs. 25 min), but the rest of the prices did not exceed the minimum price by 36%. Despite the fact that PHVs suffered the same traffic problems as taxis, their price increases were much higher (Figure 5).

Figure 5. Increases over minimum prices

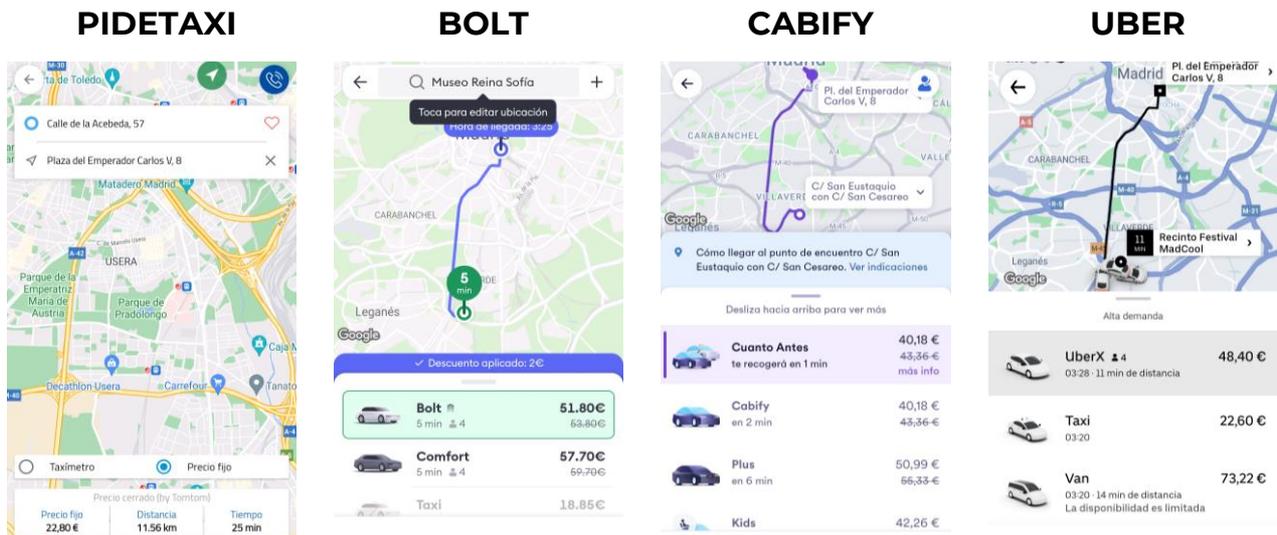


Source: Own elaboration based on prices obtained from UBER, BOLT, CABIFY and PIDETAXI apps. Average of price increases (with respect to the minimum price for that route with that operator) for each trip.

4 Prices of PHV services were more than twice as high as taxi prices during MAD COOL

18. Prices for PHV services skyrocketed during the start and end times of each session, reaching two and a half times taxi prices.
19. The prices of PHV services to MAD COOL during the first hours of each day and, above all, on the way back after the last concert were systematically above taxi prices.
20. For example, at three o'clock in the morning from Friday to Saturday, a return trip requested in PIDETAXI from MAD COOL to Atocha Street had a price of €22.80, while PHV prices were more than double. The price (without applying discounts) for that trip was €53,80 in BOLT, €43,36 in CABIFY and €48,40 in UBER (Illustration 1). On Saturday at 3 a.m., the trip from MAD COOL to Plaza de Castilla reached a price of €93,30 in BOLT. The price of the same trip by taxi at that time was €37.15.

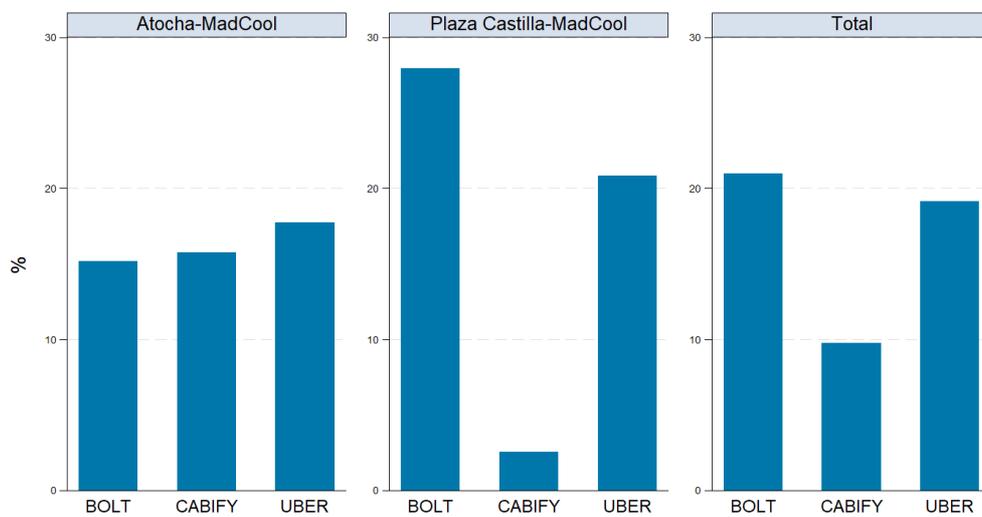
**Illustration 1. Price trip MAD COOL - ATOCHA Street
(8/7/23 - 3:00)**



Source: PIDETAXI, BOLT, CABIFY and UBER apps.

21. At the beginning of each day of the festival (6 p.m.-9 p.m.), prices for one-way PHV services to MAD COOL were on average between 10% and more than 20% above taxi prices (21% for BOLT, 10% for CABIFY; and 19% for UBER) (Figure 6).

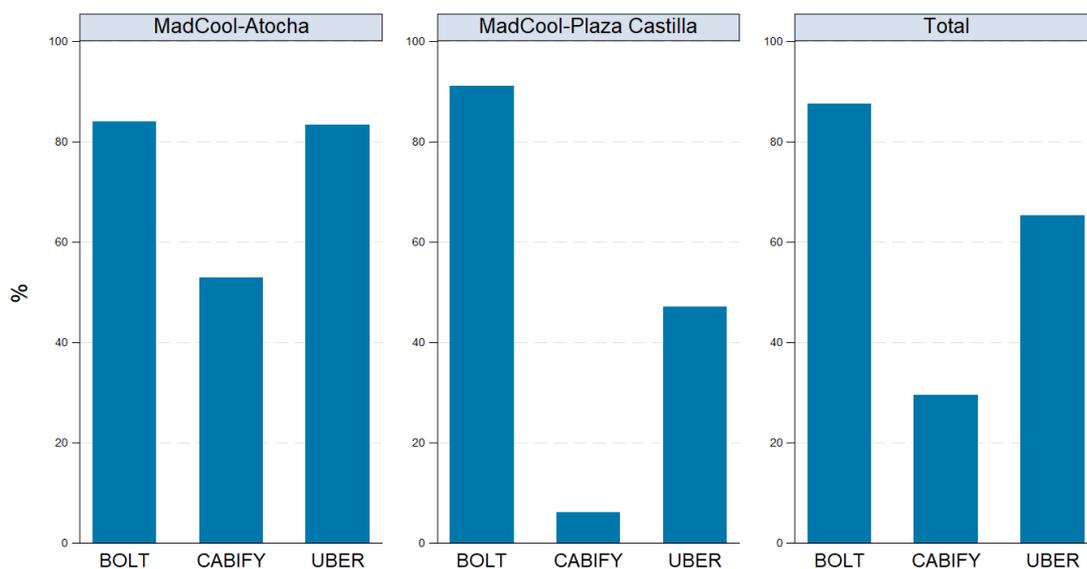
Figure 6. Average surcharges in regard to taxi prices for one-way trips to MAD COOL (6 p.m.-9 p.m.).



Source: Own elaboration based on prices obtained from UBER, BOLT and CABIFY apps. Average of the surcharges for PHV trips compared to the same trip by taxi.

22. At the end of the day (1 a.m.-4 a.m.), the difference was much greater. The price of a PHV ride was on average between 30% and almost 90% higher than the price of the same ride at the same time in a taxi (87% in BOLT, 29% in CABIFY and 65% in UBER) (Figure 7).

Figure 7. Average surcharges in regard to taxi prices for MAD COOL return trips (1 a.m.-4 a.m.).



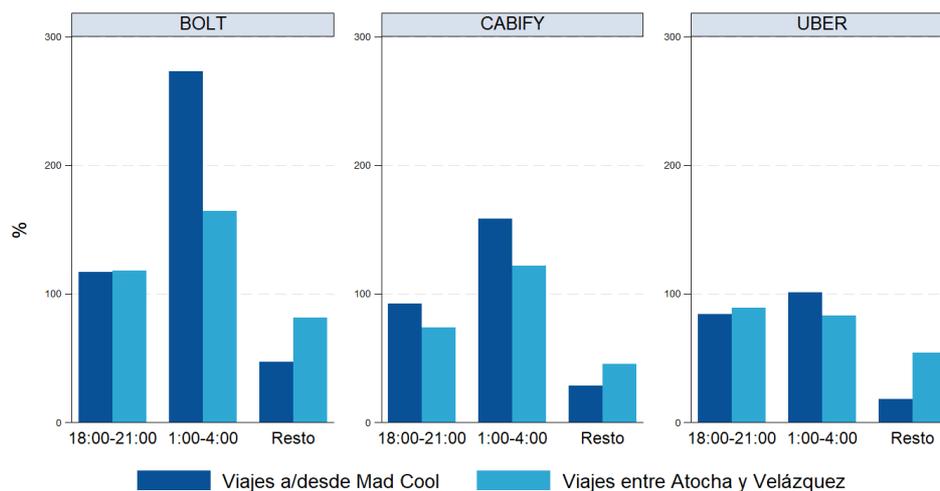
Source: Own elaboration based on prices obtained from UBER, BOLT, CABIFY and PIDETAXI apps. Average of the surcharges for PHV trips compared to the same trip by taxi.

5 During MAD COOL, the prices of PHV services doubled on other routes outside the festival

23. During MAD COOL arrival and departure times (6 p.m.-9 p.m. and 1 a.m.-4 a.m.), the prices of services with origin and destination points outside the festival, such as the route from Atocha Street to Velázquez Street and vice versa (both with origin and destination in the centre of Madrid), also increased substantially (Figure 8):

- i. Between 6 p.m. and 9 p.m., prices for PHV services on routes between Atocha Street and Velázquez Street practically doubled for all operators (average increase of 118% for BOLT, 74% for CABIFY and 89% for UBER).
- ii. Between 1 a.m. and 4 a.m., the prices of PHV services on routes between Atocha and Velázquez Streets more than doubled (average increase of 164% for BOLT, 122% for CABIFY and 83% for UBER).

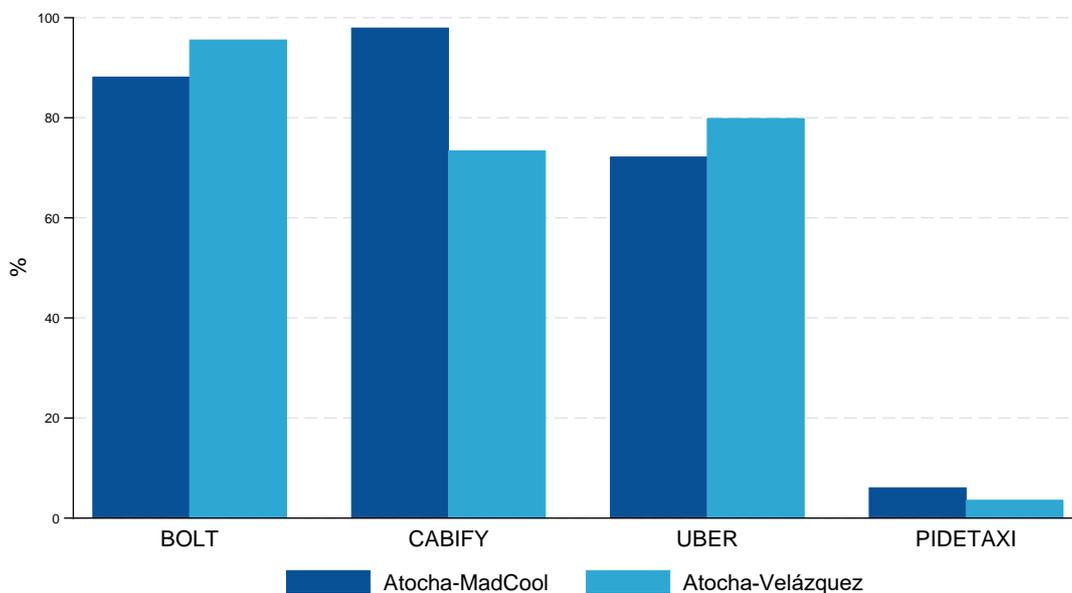
Figure 8. Average price increase of PHV services in non-MAD COOL routes.



Source: Own elaboration based on prices obtained from UBER, BOLT and CABIFY apps. Average of price increases (with respect to the minimum price for that route in that operator) for each trip.

24. The increase in prices for trips to destinations other than MAD COOL is similar to the increase in prices for trips to MAD COOL. For example, departing from Atocha Street, price increases were around 80% for trips to MAD COOL and trips to Velázquez Street (Figure 9). Figure 9), during the arrival hours at MAD COOL (18:00-21:00). In the case of taxis, there is practically no difference between trips to MAD COOL and trips to other destinations outside MAD COOL.

Figure 9. Average price increase for trips originating in Atocha Street (18:00-21:00).



Source: Own elaboration based on prices obtained from UBER, BOLT and CABIFY apps. Average of price increases (with respect to the minimum price for that route in that operator) for each trip.

6 Conclusions

25. The MAD COOL music festival, which was held in Madrid at the beginning of July 2023 and attracted more than 65,000 daily attendees, was a natural experiment in how major events affect the price of PHV and taxi services. During the festival, there was a significant increase in the prices of PHV services, both for trips to and from MAD COOL, as well as for other trips in the city of Madrid. In contrast, taxi prices remained practically unchanged.
26. Prices of PHV services multiplied by up to five times during MAD COOL. On average, CABIFY, UBER and BOLT prices increased by two times on arrival at the festival and by two to four times on departure. Taxi prices only increased, on average, by less than ten percent on entry and less than twenty percent on exit, due to increased travel times due to the complex traffic situation.
27. Prices for PHV services were more than twice as high as taxi prices during MAD COOL. One-way PHV trip prices to MAD COOL averaged between 10% and 20% above taxi prices. MAD COOL return prices averaged between 30% and 90% above taxi prices.
28. During MAD COOL, the prices of PHV services also doubled in other non-festival routes. During the entrance and exit times of the festival, the prices of non-festival routes more than doubled.



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