



# Minimum Wage Legislation and Productivity in the German Taxi Market

Florian Artinger & Perke Jacobs

## Data Available

Shift and Trip data from a large German city, covering about 6,000 drivers, 1 million shifts, and 10 million trips between Jan 2013 to Jun 2015. The data was collected by tax authority and is guarded against manipulation.

Shift Data

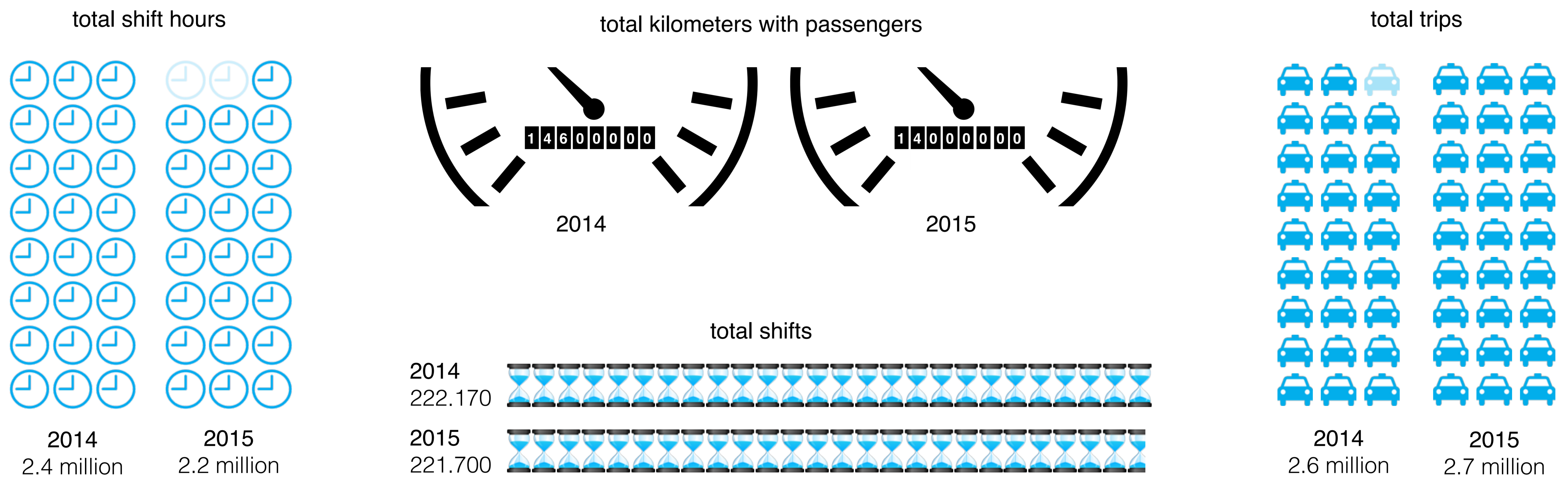
shift ID	driver ID	shift begin	shift end	shift revenue	total km	passenger km	number of trips
1	1	2013-01-01 01:17	2013-01-01 06:32	€117.90	51.4	49.1	6
2	1	2013-01-02 00:05	2013-01-02 08:11	€130.00	108.1	69.2	11
3	1	2013-01-03 23:10	2013-01-04 05:00	€176.90	128.6	66.0	8
4	2	2013-01-01 11:07	2013-01-01 20:23	€141.60	110.0	77.4	8
5	2	2013-01-03 13:13	2013-01-03 17:12	€47.10	54.7	44.5	4
6	2	2013-01-04 06:02	2013-01-04 14:12	€88.20	95.3	72.3	9
7	2	2013-01-05 08:41	2013-01-05 18:44	€113.00	114.4	101.5	12
8	2	2013-01-07 14:14	2013-01-07 23:08	€56.40	159.4	60.4	5
9	2	2013-01-08 12:21	2013-01-08 22:14	€156.40	140.3	120.4	11
10	3	2013-01-06 18:55	2013-01-07 03:32	€148.40	173.8	115.7	12
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Trip Data

trip ID	shift ID	trip begin	trip end	trip revenue	trip km
1	1	2013-01-01 01:23	2013-01-01 01:29	€6.40	2.4
2	1	2013-01-01 01:49	2013-01-01 02:11	€28.30	12.4
3	1	2013-01-01 02:34	2013-01-01 02:44	€11.20	4.8
4	1	2013-01-01 03:01	2013-01-01 03:13	€12.30	5.3
5	1	2013-01-01 04:10	2013-01-01 04:23	€21.10	8.8
6	1	2013-01-01 05:22	2013-01-01 05:51	€37.60	15.4
7	2	2013-01-02 00:18	2013-01-02 00:29	€8.90	5.1
8	2	2013-01-02 01:05	2013-01-02 01:21	€16.40	8.4
9	2	2013-01-02 01:51	2013-01-02 02:04	€15.30	7.8
10	2	2013-01-02 02:16	2013-01-02 02:20	€4.80	2.3
11	2	2013-01-02 02:44	2013-01-02 02:59	€14.40	8.0
12	2	2013-01-02 03:13	2013-01-02 03:26	€11.60	6.9
13	2	2013-01-02 03:31	2013-01-02 03:38	€5.20	2.7
14	2	2013-01-02 04:25	2013-01-02 04:34	€9.30	5.1
15	2	2013-01-02 05:04	2013-01-02 05:17	€13.50	7.3
16	2	2013-01-02 06:33	2013-01-02 06:56	€18.30	9.6
17	2	2013-01-02 07:31	2013-01-02 07:44	€12.10	7.0
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## Aggregate Effects

Comparing the first six months of 2014 and 2015 reveals that demand for taxis decreased slightly, as shown by the drop in total passenger kilometers. Likewise, the supply of working hours decreased, while retaining the same amount of shifts.



## Individual Effects

The lack of supervision inherent in the business model lead to the apprehension that a uniform wage would undermine drivers' incentive structure and induce productivity losses. For a sample of 1680 drivers, we find that about 80% of drivers, on average, generate higher hourly revenue in 2015 than they did during the same period in 2014. This shift likely reflects an increased fare rather than changes in effort, as shown by the almost nil-symmetric distributions of changes in the shares of idle kilometers and idle shift time.

