



Data Journalism

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<https://xquejoyproject.eu/>

ISTAT - Reams of paper acquired by the administrations · data link [here](#)

The dataset contains data on the absolute number of reams of paper purchased by local Province administrations. It also contains the percentage of such paper that is recycled, eco compatible or neither of the two. Note: 1 reams usually equals 500 sheets of paper, although here there is no explicit indication to confirm this.

The data is available only for the year 2012, something that could be a limitation when making assumptions about the data. For example, it could be that a Province has a very low number of purchases only because the 2012 purchases compensates for high values in the preceding or following years - and not because it is actually a very eco-friendly & low-paper consumption province. In short, this lack of context means that, if I were really to publish a story on this topic, I'd need to look for more contextual data to frame the findings (data from past years, data on ICT services among the Public Administrations to check wheter lower paper consumption is linked to higher efficiency and wider coverage of ICT in each Public Administrations, etc.)

The data is also not complete: there is no information about paper purchased by the Provinces of: Caserta, Cosenza, Isernia, Reggio di Calabria, Trani, Verona

Other than this, the data looks already very clean. I anticipate that I will still need to enhance it, by merging it with population data for each Province. As each Province serves a different population size, it also has different needs in terms of paper consumption. I will thus need to normalize the absolute number of purchases on a per-capita basis to make the numbers comparable.

- I believe that a ream is an abstract term and it would be easier and more impactful to talk about sheets of paper. I thus **multiplied** the amounts by 500 (1 ream = 500 sheets)
- After downloading Italy's 2012 population data for each province from ISTAT and using Google Sheets' **FILTER** formula to merge it with my initial dataset, I calculated **per capita rates** of paper purchases by Italian Province local administrations. I discovered that:
 - In 2012, the selected Italian provinces purchased overall on **average** 9 sheets of paper per resident.
 - In 2012 Trieste purchased most reams of paper per capita: 5.4 reams every 100 residents, or 27 sheets of paper for each of its residents. (**max** value)
 - At the opposite side of the spectrum Rome, the most populated province, purchased only 0.3 sheets of paper for each of its residents (**min** value)
- After **sorting** the data on the variable referencing the % of non-recycled and non-eco paper, I discovered that:
 - One province every 5 (20%) purchased *exclusively* non-recycled/non-eco paper.
 - While it's true that Rome had the lowest number of paper purchases, all of its purchases were for non-eco/non-recycled paper, so its environmental impact might be higher than provinces with higher per capita paper consumption but that bought only recycled paper. Latina had a little more purchases (2 per resident) but all of them from eco-compatible paper.
- After **sorting** the data on the the variable referencing the % of recycled paper, I discovered that:
 - Belluno, Bergamo, Campobasso, Carbonia, Enna, Pordenone, and Reggio nell'Emilia purchased only recycled paper.
 - Agrigento, Brescia, Sondrio, Pisa, Massa Carrara, Palermo, Udine, La Spezia and Trieste purchased only eco-compatible paper

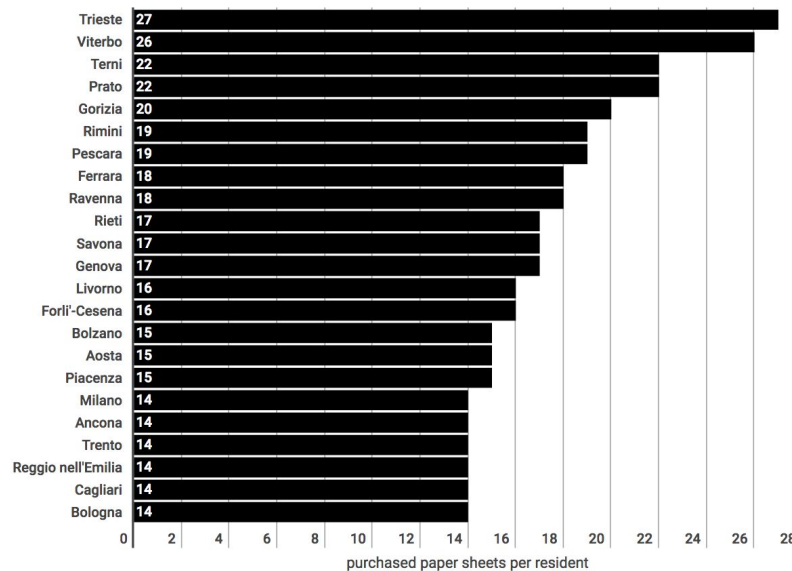
Latina, one of the most environment-friendly local administrations (at least for paper purchases)

During 2012, the Italian local administrations at the Province level alone purchased almost a million reams of paper (908,223 to be exact¹). This means about 9 pieces of paper for every single Italian resident in the considered provinces.

Not all Provinces are equal in their paper consumption and purchases. Some of them brought definitely way more paper than others in relation to their population. The absolute record goes to Trieste, with 27 sheets of paper purchased per resident. At the opposite side of the spectrum there's Rome, with only 0.27 paper sheets purchased per capita. Other Provinces with low numbers are Latina, Catanzaro, Avellino, Chieti, Lodi, and Catania, all of which purchased 2 paper sheets per resident.

¹ The provinces of Caserta, Verona, Cosenza, Reggio di Calabria, Isernia and Trani are excluded from the count because there is not available data about their purchases.

Top 10 Provinces for paper purchases per resident, 2012



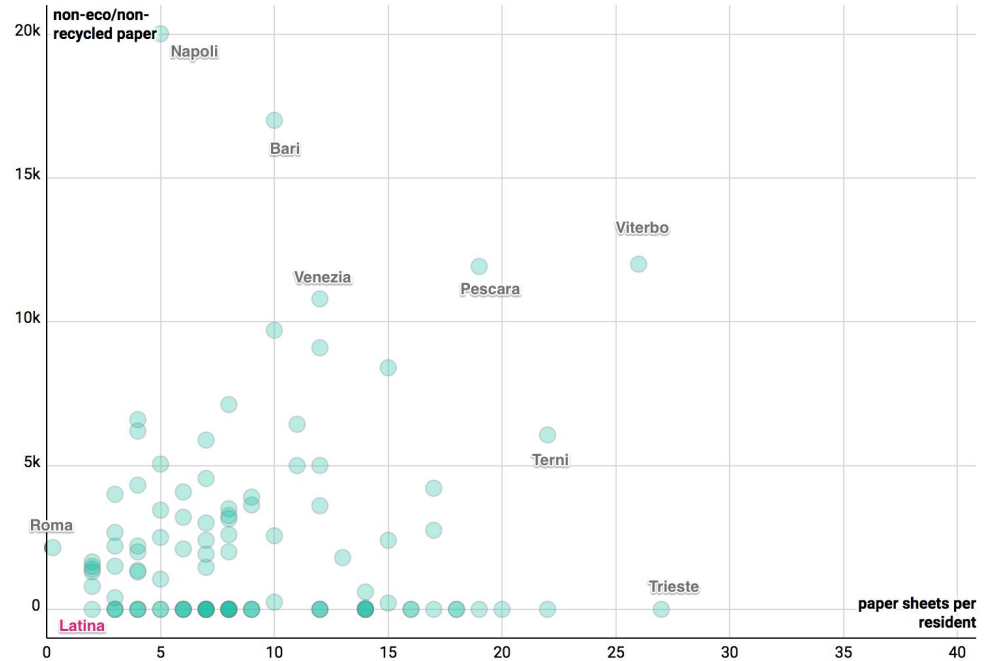
The quantity of purchased paper is not the only thing that matters in terms of environmental impact. Take the record-breaking Trieste: all of its 6+ million sheets of paper are made from eco-compatible paper. At the contrary, none of the 2,145 sheets brought by the Province of Rome is made from recycled or eco-compatible paper.

Likewise, also Naples has a below-average number of per capita paper purchases: 5 sheets per resident. It brought overall more than 20,000 non-eco/non-recycled paper, the highest number of all.

Taking also eco-friendly quality of paper in mind, then Latina certainly strikes out: only two paper sheets per resident, and all of them sourced from eco-friendly paper reams

Paper Sheets Purchased by Italian Provinces, 2012

Number of paper sheets purchased by each Italian province capital



Source: ISTAT - Created with Datawrapper



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