The Grub Street Origins of the Revolution
The Effects of the *Ancien Régime* Paper Taxation on Enlightenment Publishing and Political Radicalism

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Robert Darnton: The French Revolution and the Enlightenment Book Trade

Darntons Elite Overproduction Hypothesis of the Revolution

- "France suffered from a **common ailment of developing countries: a surplus population of overeducated** and underemployed littérateurs and lawyers." (Darnton, 1982, p. 19)

- "A **literary version of the Malthusian crush**." (Darnton, 1982, p. 19)

These are then forced to "peddle smut" in "Grub Street":

- "It was in the depths of the intellectual underworld that these men became revolutionaries and that the **Jacobinical determination** to wipe out the aristocracy of the mind **was born**." (Darnton, 1982, p. 21)

- "Perhaps the propagandists of the garrets functioned as the **ideological carriers who injected** the crude, **Jacobinical version of Rousseauism** into the Parisian sans-culotterie." (Darnton, 1982, p. 39)

Darntons Elite Overproduction Hypothesis of the Revolution

High Enlightenment vs. Grub Street...

"Each of the opposing camps deserves its place among the intellectual origins of the Revolution." (Darnton, 1982, p. 37)

Echoed by Contemporaries

Voltaire observes "overpopulation":

> *"And Voltaire, obsessed by the overpopulation of young writers in Paris (**'Egypt of old had fewer locusts'**), claimed that he attacked Grub Street in order to warn youths away from it. [...] **They render themselves incapable of any useful work."** (Darnton, 1982, p. 18)*

Rivarol blames them for Revolution:

> *"Rivarol interpreted the **Revolution as the work of the status-hungry surplus population** of men who had failed to make it in the old order."* (Darnton, 1982, p. 38)

Elite Overproduction in what Sense?

- **Only a limited number of positions available that support life as a writer (mostly royal patronage);**

- **No lack of meritocracy:** Some made it to the top from poor backgrounds (Venaissain, Marmontel, Rivarol etc.).

- **Mismatch between ideas and reality:**
  "They had come with the conviction that the republic of letters really existed [...] as the literary counterpart to the atomic individualism of Physiocratic theory, a society of independent but fraternal individuals, in which the best men won but all derived dignity, as well as a living, from service to the common cause." (Darnton, 1982, p. 99)

Our Narrative

Three Steps:

- **Step 1:** A tax increase in a tax on paper leads to a change in the French literati's book diet due to a substitution effect. The consumption of illegal books increases.
- **Step 2:** The books flow into the French Kingdom from an area dubbed the *Fertile Crescent* of Enlightenment publishing. Cities closer to the *Fertile Crescent* experience more of an inflow of books and a more intense revolutionary period.
- **Step 3:** Is the mechanism the one outlined by Darnton (1982)? We observe the effects of elite overproduction in Paris on literary output.

Our Identification Strategy: A Fatal Tax Reform?

- Expensive wars (like the American War of Independence), bad harvests in the 1780s, and an inefficient tax system based on tax farming have left the **French Crown in a dire financial situation** on the eve of the Revolution.

- Scrambling to obtain funds - and oblivious of possible adverse consequences - they **introduce a tax on paper**.

- This **hurts the Paris Printers' Guild** - the effective publishing monopoly - **at the expense of foreign semi-legal publishers** that have been smuggling counterfeit books into the kingdom.

- **We can study the effects of this tax** on the composition of the book market in France, as well as the effect of the inflow of new material.

Literature Review (1/2)

History and Philosophy

- **Robert Darnton (1973, 1982, 1987, 1995, 2012, 2021, 2024)** studies the book trade in enlightenment France and formulates the thesis of the *'Grub Street' origins of the Revolution*.
- **Habermas' (1991)** *Strukturwandel der Öffentlichkeit* describes the rise of the bourgeois (*bürgerlich*) public sphere in Europe. The commercial and capitalist nature of this public sphere is stressed by the Marxist Habermas.
- **Anderson (2016)** - in *Imagined Communities* - stresses the importance of *print capitalism* for the cohesion of a new bourgeois class that could not rely on bonds of kinship, for the emergence of the nation state, and for retroactively making *'a thing'* out of *The Revolution*.

Literature Review (2/2)

Economic Literature

- **Squicciarini and Voigtländer (2015):** Cities with more copies of the *Encyclopédie* experience more economic growth.
- **Ottinger and Rosenberger (2023):** Trace one origin of revolutionary thought in France back to the American Revolution.
- **Dittmar (2011):** Documents the economic effects of the advent of the printing press.
- **Dittmar and Seabold (2019):** Show how economic competition in the printing business influences the content of print output.
- **Sasaki (2025):** Establishes a correlation between the flow of illegal books and the intensity of the revolution, but cannot provide a causal interpretation.
- **Koschnick and De Pleijt (tba):** The expansion of education in early modern England created an oversupply of intellectuals. Intellectuals without appropriate employment were more likely to radicalize.

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The Data

We are working with four datasets:

- The *The French Book Trade in Enlightenment Europe (FBTEE)* database;
- *La France Littéraire* (Quérard, 1839);
- A *"Census of Literary Paris"*.
- A dataset of indicators of revolutionary intensity.

FBTEE: The French Book Trade in Enlightenment Europe

FBTEE: The French Book Trade in Enlightenment Europe

- The dataset used throughout in this presentation is the *The French Book Trade in Enlightenment Europe (FBTEE)* database. (Burrows et al., 2014)
- This dataset is based on the archives of the *Société Typographique de Neuchâtel (STN)* (day books, the stock books, the order books, letters etc.) and should theoretically offer a complete and consistent database for the sales of the *STN*.
- Publishing houses also acted as wholesalers for books during that period and tried to satisfy all of their customers demands, so the dataset is not only contain *STN*-published books.

Publications

- Burrows (2013a, 2013b), Burrows and Curran (2012), Curran (2010a, 2010b, 2013)
- Review by Darnton (2012)

FBTEE - Summary of the Data (1/2)

Summary of Data

- We have **63,395 registered trades**;
- **52,773** of which are **sales**;
- Only **14,945** involve **books published by the *STN***. The others are from other publishers;
- Sold to **229 towns**;
- To **815 individual clients** (mostly booksellers);
- **3,696 book titles**;
- **853,945 copies**.

FBTEE - Summary of the Data (2/2)

For every Trade we have the following information:

- Date of Trade;
- Number of Copies;
- Title of Book;
- Name of Client;
- Occupation of Client;
- Location of Client;
- Distance of Client from Neuchâtel;
- Sex of Client;
- Name and Address of potential Middlemen;
- Publisher of Book/Edition Type;
- Source of Manuscript;
- Number of Crate;
- "Keywords" for Book;
- *"Parisian Category"*;
- Location of Publication of Book;
- Language of Book.

From Bairoch et al. (1988), we obtain data on historical municipal-level population.

La France Littéraire (Quérard, 1839)

- Compiled by the **bibliographer Joseph-Marie Quérard**;
- The idea: A *"complete national bibliography"*.
- Claims to contain **all works published in French between 1700 and 1830.**
- Supported by a **government subsidy** granted by François Guizot (the dominant political figure of the July Monarchy).

La France Littéraire (Quérard, 1839) - Summary

From Quérard (1839) we have information on:

- 29,447 authors;
- 104,549 titles.

We have the following datapoints for each author/book:

- Name;
- Date and location of birth and death;
- Membership in learned societies;
- Works;
- Publisher, location, and year of publishing;
- Book format;
- Volume;
- Price in 1839;
- Number of pages.

La France Littéraire (Quérard, 1839) - Summary

We can extend this using the Universal Short Title Catalogue

Published books in France

The *"Census of Literary Paris"*

- The **opportunities to make a living as a writer were very limited** in late 18th century Paris.

- Writers **could not sustain themselves through book sales** - both due to piracy and due to the *privilèges* being awarded to the printers' monopoly of Paris.

- In order to live as writers, they **needed (royal) patronage**.

- We can get a good idea of the professional writing population of Paris - the ***High Enlightenment***.

Sources on the High Enlightenment

There are several ways of obtaining patronage:

- Publishing in quasi-official journals like *Le Mercure* or *Le Journal des Sçavans*;
- Official historiographers (*historiographe de la marine, des bâtiments royaux, des menus-plaisirs, de lOrdre du Saint-Esprit, de la France* etc.);
- Membership in the *Académie Française* (after 1772);
- Being awarded a royal pension.

We have data on all of them.

Quasi-official Journals

LE
JOURNAL
DES
SÇAVANS,
POUR
L' ANNÉE M. DCC. LXXX.
JANVIER.

A PARIS,
Au Bureau du Journal de Paris, rue de Grenelle S. Honoré,
près celle du Pélican.

M. DCC. LXXX.
AVEC PRIVILÈGE DU ROI.

- We have every volume of the *Mercure de France* and the *Journal des Sçavans* published between 1740 and 1791
- Digitised by BNF Gallica
- List of authors.

Official Historiographers

ALMANACH
ROYAL,
ANNÉE COMMUNE
M. DCC. LXXXIX.
PRÉSENTÉ
A SA MAJESTÉ
Pour la premiere fois en 1699,
PAR LAURENT D'HOURY, ÉDITEUR.

MIS'EN ORDRE ET PUBLIÉ
PAR DEBURE, GENDRE DE FEU M. D'HOURY.
De l'Imprimerie de la Veuve D'HOURY & DEBURE, Impri-
meurs-Libraires de Monseigneur le Duc d'ORLÉANS, rue
Hautefeuille, près celle des Deux Portes.

AVEC APPROBATION ET PRIVILÈGE DU ROI.

- Appointments for official historiographers of the Kings were published in the *Almanach Royal*, which appeared annually.
- Digitised by BNF Gallica
- We have all volumes of the *Almanach Royal* published between 1740 and 1791.

Royal Pensions - Ten Dossiers at the *Archives Nationales*

Royal Pensions - Ten Dossiers at the *Archives Nationales*

- Contains information on 147 writers who applied for Royal financial support under a new scheme.
- Not all were successful.
- Partly summarised by Tourneux (1901)

Pensions in the Post-revolutionary Period

- In one of the dossiers, we found a list of writers being awarded a pension by the revolutionary government in 1798 (5th Vendémaire year VII).

What about the *Low Enlightenment*

What do we know about the people who did *not manage to make a living as writers* - Darnton's **Grub Street**?

We have the following pieces of information:

- Rivarol and Champcenetz (1808) publish a **'mock census' of failed writers** for the year 1788 (**Petit almanach de nos grands hommes**).

- The *Low Enlightenment* has its own journal, **Les Nouvelles de la République des Lettres et des Arts**.

Police Spies

Rivarol and Champcenetz (1808)

LE PETIT ALMANACH
DE NOS GRANDS HOMMES,
POUR L'ANNÉE 1788.

SUIVI

D'UN GRAND NOMBRE DE PIÈCES INEDITES.

PAR M. DE RIVAROL.

ORNÉ DU PORTRAIT DE L'AUTEUR.

Dis ignotis.

PARIS,
Chez LÉOPOLD COLLIN, Libraire, rue Gît-
le-Cœur, n°. 4.

1808.

- *Émigré* Rivarol and
  Champcenetz, guillotined in
  1794, publish a *'mock
  census'* of failed writers.
- Mockingly, it is called *Petit
  Almanach de nos Grands
  Hommes* - "Small Almanach
  of our Great Men"
- Contains around 800 entries
  of failed writers with their
  works and additional
  information.

The *Grub Street* Journal

- According to Darnton (1982), *Grub Street* had its own journal, *Les Nouvelles de la République des Lettres et des Arts*.
- We have all volumes of this journal for the years 1779-1791.
- But they do not contain information on authorship.

Data on Revolutionary Intensity

We have the following datasets on intensity of the Revolution:

- **Share of Refractory Clergy** (Squicciarini, 2020)
  Used in Ottinger and Rosenberger (2023), Kelly (2021), and Blanc (2023).
- **HiSCoD Conflict Dataset** (Chambru and Maneuvrier-Hervieu, 2022)
  Used in Ottinger and Rosenberger (2023), Chambru et al. (2024), and Stewart (2025).
- *Cahiers des Doléances* (Shapiro and Markoff, 2001)
  Like Acemoglu et al. (2011) and Chambru (2019), we focus on *doléances* focused on taxes or the *gabelle*.
- **Number of *Émigrés*** (Greer, 1951)
  Used in Sasaki (2025).
- **Number of Executions during the *Terreur*** (Greer, 1935)
  Used in Sasaki (2025).

Reforms of the French Book Trade in the late 18th Century

Our Differences-in-Differences framework focuses on four turning points in French publishing history:

- **1771-1775: Introduction of a Tax on Paper**
  A tax of 20 sous per ream of paper is introduced on the 1st March. This deals a significant blow to the Paris guild as paper represents around 50% of their input costs (Darnton, 2021, p. 29). The guild protests and for four years *"between 1771 and 1775, the state issues edict after edict, and the booksellers reply with 'memorandums upon memorandums'"* (Darnton, 2021, p. 31). The final edict, keeping the tax, is published on the 23rd April 1775. (Darnton, 1982, p. 190; Darnton, 2021, p. 30 f.)
  Effect on *STN* sales: Gives a sales boost to semi-legal publishers outside France.

- **1777: New Publishing Code**
  August 30th, 1777: A new publishing code loosens the stranglehold of the Paris guild and brings books into the public domain. Fostering competition and "increasing commercial activity" is an explicit goal of the crown. (Hesse, 2022, p. 41; Darnton, 1982, p. 188 ff.; Darnton, 2021, p. 35)
  Effect on *STN* sales: Gives a sales boost to provincial publishers outside the Paris monopoly in France. These are competitors of the *STN*, we should see a decline in *TSA* exports.

Reforms of the French Book Trade in the late 18th Century

Our Differences-in-Differences framework focuses on four turning points in French publishing history:

- **1782: A Surtax raises the paper tax to 30 Sous**
  January 1782: The tax on paper is increased by a surtax and now costs 30 sous per ream (500 sheets). A ream of good white paper now costs 11 livres in Paris and 8 livres in Neuchâtel. (Darnton, 2021, p. 29)
  Effect on *STN* sales: Gives a sales boost to semi-legal publishers outside France.

- **1783: Crackdown on Semi-legal Foreign Publishers**
  June 12th, 1783: Vergennes destroys illegal book trade by requiring books to be transmitted to the Paris Guild for inspection (Darnton, 1982, p. 91)
  Effect on *STN* sales: Destroys the *STN's* business in France.

Differences-in-Differences: Regression Framework

We estimate the following model:

$$
\begin{aligned}
Sales_{t,c} = &\ \alpha_0 + \alpha_1 France_c \\
&+ \beta_1 Post_{23\ April\ 1775,t} + \beta_2(Post_{23\ April\ 1775,t} \cdot France_c) \\
&+ \beta_3 Post_{30\ August\ 1777,t} + \beta_4(Post_{30\ August\ 1777,t} \cdot France_c) \\
&+ \beta_5 Post_{1\ January\ 1782,t} + \beta_6(Post_{1\ January\ 1782,t} \cdot France_c) \\
&+ \beta_7 Post_{12\ June\ 1783,t} + \beta_8(Post_{12\ June\ 1783,t} \cdot France_c) \\
&+ \gamma population_{t,c} + \epsilon_{t,c}
\end{aligned}
$$

- $Sales_{t,c}$ are books sales to town c in the year up to day t.
- Standard errors are clustered at the year level.

We estimate four different specifications:

- $Sales_{t,c}$ and $log(Sales_{t,c})$ as dependent variable;
- Including and excluding $population_{t,c}$.

Differences-in-Differences: Regression Framework

Treatments

Tax introduction:

- $Treated_t = 1$ if $t > 1^{st}$ *March* 1771 *and* $t < 1783$ *or*

- $Treated_t = 1$ if $t > 23^{rd}$ *April* 1775 *and* $t < 1783$ $Treated_t = 1$ if $t > March/August$ 1771 *and* $t < 1783$

New publishing code: $Treated_t = 1$ if $t > August$ 1777 *and* $t < 1783$
Surtax of 10 sous: $Treated_t = 1$ if $t > 1^{st}$ *January* 1782 *and* $t < 1783$
Crackdown: $Treated_t = 1$ if $t > 1783$

Treatment Groups

- We define the **treated group** as towns within the **18$^{\text{th}}$ Century Kingdom of France**.

- The **control group is Non-French-speaking Europe**. French-speaking Europe is excluded because it includes what Darnton (2021) calls the *Fertile Crescent* of illegal publishing from Brussels to Avignon. Illegal booksellers and publishers in these cities would often send each other books that these houses would then ship to their customers. This means that increasing demand in France also increases shipments to the *Fertile Crescent*.

Results: Diff-in-Diff - France vs. Non-French-speaking Europe

Year-to-date Book Sales: France vs. Non-French-speaking Europe

DiD - France vs. Non-French-speaking Europe - 1775 as tax cutoff

Table 1: Difference-in-Differences Regression Results

	(1) $Sales_{c,t}$	(2) $Sales_{c,t}$	(3) $ln(Sales_{c,t})$	(4) $ln(Sales_{c,t})$
$France_c = 1$	-431.4*	-405.9*	-0.118**	-0.113*
	(214.6)	(228.3)	(0.0514)	(0.0541)
$France_c = 1 \times post_{paper\ tax,1775}=1$	6506.6***	6483.6***	1.028***	1.023***
	(1059.0)	(1071.2)	(0.150)	(0.152)
$France_c = 1 \times post_{publishing\ code,1777}=1$	-3696.7***	-3667.5***	-0.632***	-0.629***
	(1222.5)	(1250.8)	(0.161)	(0.164)
$France_c = 1 \times post_{surtax,1782}=1$	12288.4***	12341.3***	0.584***	0.589***
	(968.8)	(984.3)	(0.115)	(0.117)
$France_c = 1 \times post_{crackdown,1783}=1$	-4637.5*	-4736.6*	-0.873***	-0.881***
	(2519.0)	(2457.5)	(0.281)	(0.280)
Constant	7850.0***	7810.8***	8.862***	8.854***
	(223.8)	(199.9)	(0.0240)	(0.0223)
Population Control Included		✓		✓
Observations	2891	2729	2891	2729

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

DiD - France vs. Non-French-speaking Europe - 1771 as tax cutoff

Table 2: Difference-in-Differences Regression Results

	(1) $Sales_{c,t}$	(2) $Sales_{c,t}$	(3) $ln(Sales_{c,t})$	(4) $ln(Sales_{c,t})$
$France_c = 1$	-801.5***	-624.9***	-0.283***	-0.250***
	(111.2)	(98.10)	(0.00963)	(0.0108)
$France_c = 1 \times post_{paper\ tax,1771}=1$	3546.1**	3396.0**	0.671***	0.641***
	(1447.5)	(1464.4)	(0.225)	(0.228)
$France_c = 1 \times post_{publishing\ code,1777}=1$	-366.2	-370.9	-0.110	-0.113
	(1584.4)	(1599.9)	(0.238)	(0.239)
$France_c = 1 \times post_{surtax,1782}=1$	12288.4***	12341***	0.584***	0.589***
	(968.8)	(984.3)	(0.115)	(0.117)
$France_c = 1 \times post_{crackdown,1783}=1$	2239.2	1952.3	0.319	0.276
	(2311.9)	(2235.8)	(0.248)	(0.246)
Constant	7078.1***	7061.5***	8.745***	8.756***
	(223.8)	(199.9)	(0.0240)	(0.0223)
Population Control Included		✓		✓
Observations	2891	2729	2891	2729

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

What were the effects of the legislative changes?

Depending on the specification, the effects of the legislative changes had large and significant effects:

- The **initial introduction of the tax** led to an increase of the inflow of books of **60 to over 100%**. This corresponds to 3,000-6,000 additional books in one year.
- The **new publishing code** that favored the provincial publishers, **reversed about half of that growth**.
- The **surtax** increased the inflows from the *STN* by an additional 60%.
- The **Crackdown** 12 years after the tax's introduction seems to have been effective.

What kind of books flowed into France?

Burrows and Curran (2012) assign keywords to each book:

- Each book several keywords assigned;
- A book can have up to 24 assigned keywords;
- In total there are 1,360 different keywords.

I have used these keywords to create (for now) six categories to look at separately:

- Enlightenment
- Science and Engineering/Technology
- Religion/Catholic Texts
- "Low Enlightenment"/Libelles/Cagliostro, Mesmer, Swedenborg etc.
- Revolutionary Literature/Political Dissent
- Pornography/"Smut"

Does the tax affect these categories differently?

Books from the "Enlightenment" Category

Year-to-date Book Sales: France vs. Non-French-speaking Europe

Books from the "Revolutionary" Category

Year-to-date Book Sales: France vs. Non-French-speaking Europe

Books from the "Catholicism" Category

Year-to-date Book Sales: France vs. Non-French-speaking Europe

Books from the "Science" Category

Year-to-date Book Sales: France vs. Non-French-speaking Europe

France
Non-French-speaking Europe

Books from the "Pornography" Category

Year-to-date Book Sales: France vs. Non-French-speaking Europe

Books from the "Low Enlightenment" Category

Year-to-date Book Sales: France vs. Non-French-speaking Europe

Differences-in-Differences - Results by Category

Table 3: DiD Results by Category - $ln(Sales_{c,t})$

	(1) Enlightenment	(2) Revolutionary	(3) Science	(4) Catholic	(5) "Low Enl."	(6) Pornography
$France_c$	-0.580	-0.188	-0.275*	-0.750***	-0.444***	-0.447***
	(0.149)	(0.142)	(0.148)	(0.160)	(0.166)	(0.146)
Paper Tax (1775)	1.346***	1.490***	0.887***	0.539***	1.153***	1.718***
	(0.246)	(0.270)	(0.175)	(0.172)	(0.326)	(0.329)
Publishing Code	-0.919*	-0.0552	-0.805***	-0.735***	-0.605	-0.491
	(0.485)	(0.522)	(0.227)	(0.442)	(0.247)	(0.499)
Surtax (1782)	1.352***	0.154	0.354	0.336	0.262	-0.0938
	(0.452)	(0.522)	(0.227)	(0.442)	(0.247)	(0.499)
Crackdown	-1.413***	-2.514***	-0.591**	-1.528**	-1.499**	-2.380***
	(0.445)	(0.307)	(0.263)	(0.573)	(0.573)	(0.311)
Constant	7.006***	6.462***	6.839***	6.604***	2.995***	6.718***
	(0.0991)	(0.102)	(0.0771)	(0.0985)	(0.0912)	(0.116)
Population Included	✓	✓	✓	✓	✓	✓
Observations	1600	939	1551	1290	135	800

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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What is "Philosophie"?

How do different Radicalisms overlap?

Radical Politics

Enlightenment

172

6

270

9

89

47

149

Radical Enlightenment

The Radical Enlightenment (Israel, 2002)

Philosophie

Pornographic / erotic works

128

5

125

14

126

26

47

Revolutionary/Dissent

What kind of books flowed into France?

How did the legislative changes affect different categories of books?

- The effects of the **paper tax** were especially pronounced for books who were affected by censorship and whose contents were illegal.
  Revolutionary and seditious material, as well as pornography show the highest coefficients. Scientific literature and Catholic material were not illegal in France and the tax increased the inflows of these books less.

- The **new publishing code of 1777** had its most pronounced effect on the *legal* categories of science and religious publications. These were the categories in which the *STN* had competition from provincial publishers. Illegal categories were less affected as the provincial publishers still had to adhere to official censorship.

- The **surtax** seemed to have affected the broader "Enlightenment" category most.

- The additional inflow of books into France from the Fertile Crescent through the taxes on paper shifted the balance of available books towards illegal material.

Utility of Book Consumer:

$$u(B_l, B_i) = B_{l,m} + B_{l,stn} + (1 + \zeta)B_i \qquad (1)$$

Where:

- B_l, m: Legal books from Paris Guild;
- $B_{l,stn}$: Legal books from semi-legal publishers;
- B_i: Illegal books from semi-legal publishers;
- ζ: Additional utility derived from illegal books.

Budget Constrain

$$m_b = (p_m + \tau)B_{l,m} + p_{stn}B_{l,stn} + (p_{stn} + \rho)B_i \qquad (2)$$

Where:

- m_b: Endowment allocated to purchase of books;
- p_m: Price of Paris Guild monopoly;
- p_{stn}: Price of semi-legal publishers;
- ρ: Risk associated with illegal books;
- τ: Tax on paper.

Alternative Specification

Comparative Statics

If we solve this, we get the following results:

- The Paris Guild is dominated by the semi-legal publishers' *legal* fare when:

  $\tau > p_{stn} - p_m$

- The Paris Guild is dominated by the semi-legal publishers' *illegal* fare when:

  $\tau > \frac{p_{stn}}{1 + \zeta - \rho} - p_m$

- Thus if τ crosses the threshold:
  - If $\zeta > \rho$ consumer shifts to illegal books;
  - If $\zeta < \rho$ consumer shifts to legal books by semi-legal publishers;
  - If $\zeta = \rho$ consumer is indifferent between the two semi-legal types.

$\zeta > \rho$ - Switch to Illegal Books

Utility per price

— Paris Guild $1/(p_m + \tau)$
- - - Semi-legal legal $1/p_{stn}$
······ Illegal $(1 + \zeta - \rho)/p_{stn}$

τ (paper tax)

$\zeta < \rho$ - Switch to "Semi-legal Books"

Utility per price

— Paris Guild $1/(p_m + \tau)$
- - - Semi-legal legal $1/p_{stn}$
······ Illegal $(1 + \zeta - \rho)/p_{stn}$

τ (paper tax)

Predictions

- **A) Consumers for whom the additional utility** of illegal books ζ **is *lower*** than the *additional* risk associated with illegal books ρ, will switch to illegally imported legal books as soon as the tax is higher than the price difference between the Guild and the STN.

- **B) Consumers for whom the additional utility** of illegal books ζ **is *higher*** than the risk associated with illegal books ρ, will switch to illegal books as soon as $\tau > \frac{p_{stn}}{1+\zeta-\rho} - p_m$

- As we expect there to be consumers for both case A) and case B), as well as consumers for whom ρ is prohibitively high, **we expect:**
    - **Substitution Effect:** Tax boosts the *STN* sales of illegal books (case A);
    - **Price Effect:** Tax boosts the *STN* sales of legal books (case B);
    - The tax *increase* will lead to both a substitution and a price effect by "switching" people with a higher individual ρ.

Did the Tax have a long-term Effect on Publishing?

Published books in France, 1700–1825

b = 0.025782; Doubling time ≈ 26.88 years

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From Grub Street to Revolution?

- Did this "change in diet" have an effect?
- Initially, we wanted to estimate the effect of the inflow of illegal books on the intensity of the Revolution.

But then...

CIRJE-F- 1252

Printed Drug: Banned Books and Political Change in Eighteenth-Century France

Yu Sasaki
The University of Tokyo

June 2025

Printed Drug - Sasaki (2025)

- Sasaki (2025) focuses on a list of **720 *illegal* books** from Darnton (1995). `Inflow of Illegal Books`

- He uses the number of *émigrés* (Greer, 1951) and the number of executions during the *terreur* (Greer, 1935) as a measure for the **intensity of the Revolution**. `Intensity of Revolution`

- He finds that an inflow of illegal books is associated with **more *émigrés* and executions among nobles and clergymen** but not among the middle classes. `Results`

- *But* there is an **endogeneity problem**.

- Can we find a source of **exogenous variation** for the inflow of books?

`Distance to Neuchâtel - Sasaki (2025)`

Distance to Neuchâtel and Book Sales

Distance to Neuchâtel and Book Sales

French-speaking Europe ◆ Rest of Europe

Distance to Neuchâtel and Book Sales

Table 4: Distance from Neuchâtel and Book Sales

	(1) Books per 1,000 inhabitants (ln)	(2) Copies	(3) ln Copies	(4) ln Copies
Distance from Neuchâtel in km (ln)	-0.950^{***} (0.171)	-3990.9^{***} (586.4)	-0.997^{***} (0.205)	-0.921^{***} (0.204)
Population Bairoch et al. (1988)		0.0255^{***} (0.00571)		
ln Population Bairoch et al. (1988)			1.068^{***} (0.164)	1.155^{***} (0.165)
Dummy French-speaking				0.837^{**} (0.350)
Constant	8.459^{***} (1.003)	24619.9^{***} (3356.8)	1.140 (1.411)	-0.606 (1.568)
Observations	141	141	141	141

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Distance to Neuchâtel and Book Sales (ln)

Distance to Neuchâtel and Book Sales (ln)

Also works if we drop Neuchâtel from the Sample

Table 5: Distance from Neuchâtel and Book Sales (excluding Neuchâtel)

	(1) Books per 1,000 inhabitants (ln)	(2) Copies	(3) ln Copies	(4) ln Copies
Distance from Neuchâtel in km (ln)	-0.885*** (0.199)	-1918.8*** (602.0)	-0.923*** (0.243)	-0.831*** (0.241)
Population Bairoch et al. (1988)		0.0207*** (0.00505)		
ln Population Bairoch et al. (1988)			1.047*** (0.168)	1.131*** (0.169)
Dummy French-speaking				0.848** (0.351)
Constant	8.069*** (1.173)	12571.1*** (3461.3)	0.915 (1.469)	-0.902 (1.628)
Observations	140	140	140	140

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Also works if we drop Neuchâtel from the Sample

France   Rest of Europe

OLS Fit

The *Fertile Crescent of Illegal Publishing*

Source: (Darnton, 2021, p. 60)

Cities with several Publishers and "large business":

- Amsterdam
- The Hague
- Rotterdam
- Brussels
- Maastricht
- Liège
- Bouillon
- Bern
- Neuchâtel
- Lausanne
- Geneva
- Avignon

Can we use "Distance to the Fertile Crescent" as Instrument?

We estimate:

$$\log(Sales_{c,t}) = \beta_0 + \beta_1 \log(Dist_{Neuchtel,t,c}) + \beta_2 Pop_{t,c} + \epsilon_t, c \quad (3)$$

Based on this we can predict the book inflows from the Fertile Crescent:

$$\widehat{\log(inflow_{t,c})} = \hat{\beta}_0 + \hat{\beta}_1 \log(Dist_{FertileCres,t,c}) + \hat{\beta}_2 Pop_{t,c} \quad (4)$$

We calculate this in several ways, defining the Fertile Crescent as including only major centers, as well as also smaller printers.

A crates-based measure?

Can we use "Distance to the Fertile Crescent" as Instrument?

Instrumental Variable Strategy

First Stage:

$$\log\left(Sales_{c,t}\right) = \gamma_0 + \gamma_1 \log(\widehat{inflow_{t,c}}) + \epsilon_{t,c} \qquad (5)$$

Second Stage:

$$RevolutionaryOutcome_{t,c} = \delta_0 + \delta_1 \log\widehat{\left(Sales_{c,t}\right)} + u_{t,c} \qquad (6)$$

A crates-based measure?

First Stage (Baillage-level)

Table 6: Inflows from Neuchâtel and Predicted Book Sales

	(1) ln Copies inhabitants (ln)	(2) ln Copies	(3) ln Copies
Predicted Inflow (Major centers)	0.730*** (0.251)		
Predicted Inflow (Minor centers)		0.644*** (0.238)	
Predicted Inflow (All towns)			0.620*** (0.236)
Constant	1.387 (1.629)	1.859 (1.575)	2.001 (1.568)
Observations	59	59	59

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Second Stage

- We still have to digitize Greer (1935) and Greer (1951).
- **Inflow of books does not** seem to **have a significant effect** on refractory clergy (Squicciarini, 2020), conflict (Chambru and Maneuvrier-Hervieu, 2022), or tax-related *doléances* (Shapiro and Markoff, 2001).
- We look at *total* **inflow of books** and do **not focus on** the 720 *illegal* **books** like Sasaki (2025).

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Darnton's 1982 Mechanism

- **How did the books influence the Revolution?**
- According to Darnton (1982), it was a **'trickle-down effect'.**
- The inflow of radical enlightenment and *philosophes* literature creates a **class of young people** eager to join the *Republic of Letters*.
- They flock to Paris where they realize the **mismatch between the** fraternal **ideal and** the *"physiocratic"* **reality**.
- Because of the **limited availability of patronage**, they are forced to earn a living on **'Grub Street'**.
- They take their ideas with them and radicalize politically. For Darnton (1982), this is the **origin of the Jacobinist ideology**.
- **Can we find evidence for this?**

Julius Koschnick and Noah Sutter   University of Southern Denmark & London School of Economics and Political Science

The Grub Street Origins of the Revolution   78 / 110

Different from Sasaki's Argument

- Sasaki (2025) argues that:
  - Elites (nobility and clergy) were among the
  - Inflow of illegal literature helped solve a collective action problem of anti-monarchical elites (nobility and clergy);
  - Prevented elites (nobility and clergy), who would otherwise have come to the rescue of the regime from doing so.

- Why would this lead to more executions and emigrations among these groups but not among others?

- We propose a different mechanism of how illegal literature influenced the Revolution.

The 'Literary Census of Paris'

Collect all people who could make a living as writers through royal patronage:

- Authors at semi-official periodicals (*Mercure*, *Journal des Sçavans*)
- Official historiographers
- Académie Française
- Royal Pensions to *Men of Letters*

This should give us **complete picture of high enlightenment** if we capture all sources of income for *philosophes*.

The 'Literary Census of Paris'

Added to this, we have the authors who did not make it - Grub Street:

- *Petit Almanach de nos Grands Hommes* (Rivarol and Champcenetz, 1808)
- *Les Nouvelles de la République des Lettres et des Arts*
- Writers who requested pensions, but were refused and are mentioned to live in poverty.

This should give us **complete picture of high enlightenment** if we capture all sources of income for *philosophes*.

The Royal Pension Scheme

In 1785, Louis XVI introduced a scheme to financially support "men of letters". In 1786, the Baron de Breteuil assembled a list of applicants including the decision of the Ministry of the *Maison du Roi*:

- **120 Applicants**
- **81** did **not receive a pension** or support
- **48** applicants explicitly have **another income source**
- **17** applicants are explicitly **without wealth**
- **53** applicants did **not receive a pension** or support *and* did **not** have any **other income source** or did not have independent wealth

Are the applicants receiving no support more likely to radicalize?

The Royal Pension Scheme

Additional information we have from Tourneux (1901):

- Birthplace of 84 individuals
  - 63 were born outside of Paris.
- Birth year and death year
  - Applicants are born between 1707 and 1757
  - Applicants die between 1786 and 1837
  - 24 individuals die during the Revolution (1789-1799)
- Information on memberships in *Académies* (21 individuals)
- Bibliographies of applicants

Next Step: Identification Strategy

We have two sources of exogenous variation in "treatment" with radical books:

- **Spatial:** The closer an author spent his formative years to the *fertile crescent* of the illegal book trade;
- **Temporal:** The more of the formative years of an author happened between 1771 and 1783;

The more likely they were to be "treated" with radical books.

The 'Literary Census of Paris'

Since we know the authors' place of origin, we can estimate:

$$NumberWriters_{town\ k} = \beta_0 + \beta_1 \cdot Numb\hat{e}rBooks_k + \gamma \cdot DistanceParis_k + u \tag{7}$$

Where $Numb\hat{e}rBooks_k$ is the number of books sold to town k predicted by distance from the *fertile crescent* (weighted by the size of the publishing industry in that town) and the diff-in-diff during the writers "formative years".

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Conclusion

We present a three-step argument in support of Darnton's (1982) *"Grub Street"* argument:

- **Step 1:** We find evidence that the paper tax introduced by the French Crown, not only led to a massive influx of books from illegal publishers abroad, it also changed the French literati's media diet. Furthermore we find evidence that the tax also affected publishing more broadly and might have led to a persistent change in the media diet.

- **Step 2:** Sasaki (2025) finds that the influx of illegal books led to more intense revolutionary terror. We propose a new IV approach to estimate this effect.

- **Step 3:** In line with Darnton (1982), we propose that the mechanism through which this happened is a trickling down of ideas from the High Enlightenment into "Grub Street" through a process of aspiring writers failing to get access to the literary establishment. We present a new dataset to study this hypothesis.

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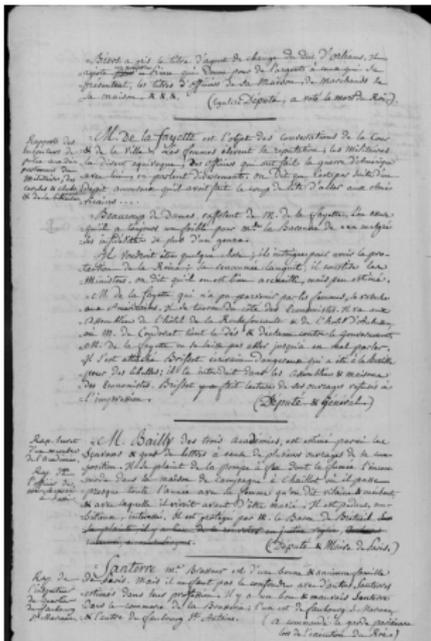
- Many *"Grub Street"* writers were forced to earn a living as spies for the Paris police force.
- The autobiography of the *lieutenant-général de police* Jean-Charles-Pierre Lenoir contains a nine-page list of police spies.
- They are not referred to by their names, however.

Utility of Book Consumer:

$$u(B_l, B_i) = B_{l,m} + B_{l,stn} + (1 + \zeta)B_i \qquad (8)$$

Where:

- B_l, m: Legal books from Paris Guild;
- $B_{l,stn}$: Legal books from semi-legal publishers;
- B_i: Illegal books from semi-legal publishers;
- ζ: Additional utility derived from illegal books.

Budget Constrain

$$m_b = (p_m + \tau)B_{l,m} + (p_{stn} + \rho_1)B_{l,stn} + (p_{stn} + \rho_2)B_i \qquad (9)$$

Where:

- m_b: Endowment allocated to purchase of books;
- p_m: Price of Paris Guild monopoly;
- p_{stn}: Price of semi-legal publishers;
- ρ: Risk associated with books by semi-legal publishers, where $\rho_1 < \rho_2$;
- τ: Tax on paper.

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Comparative Statics

If we solve this, we get the following results:

- The Paris Guild is dominated by the semi-legal publishers'
  legal fare when:
  $\tau > \frac{p_{stn}}{1-\rho_1} - p_m$

- The Paris Guild is dominated by the semi-legal publishers'
  illegal fare when:
  $\tau > \frac{p_{stn}}{1+\zeta-\rho_2} - p_m$

- Thus if τ crosses the threshold:
  - If $\zeta > \rho_2 - \rho_1$ consumer shifts to illegal books;
  - If $\zeta < \rho_2 - \rho_1$ consumer shifts to legal books by semi-legal publishers;
  - If $\zeta = \rho_2 - \rho_1$ consumer is indifferent between the two semi-legal types.

$\zeta > \rho_2 - \rho_1$ - Switch to Illegal Books
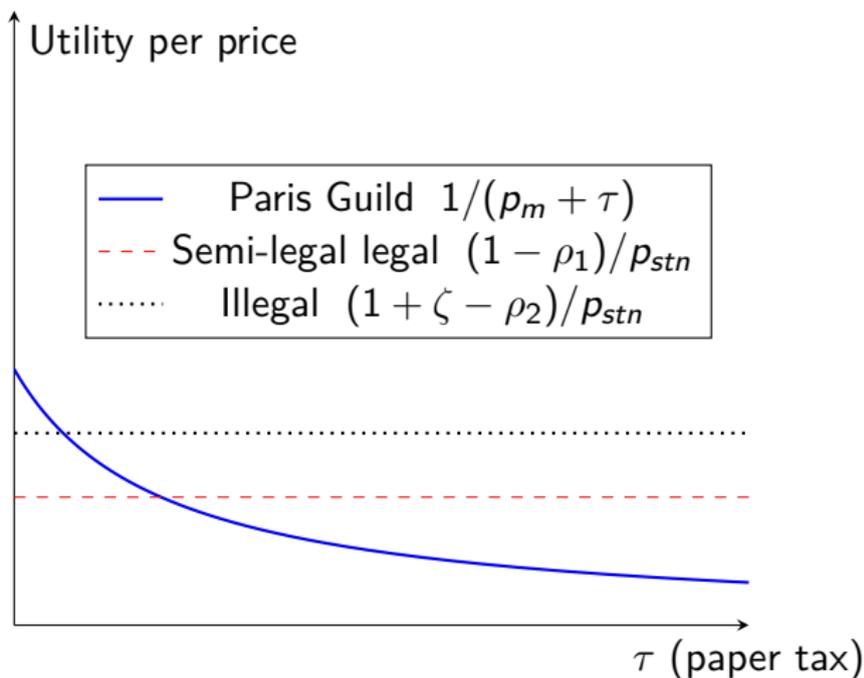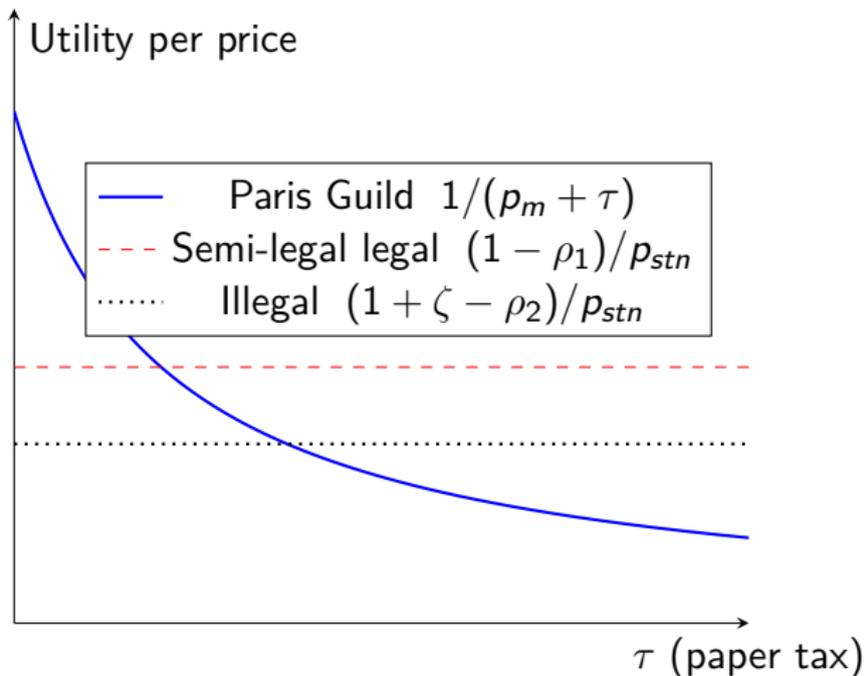
Utility per price

Paris Guild $1/(p_m + \tau)$

Semi-legal legal $(1 - \rho_1)/p_{stn}$

Illegal $(1 + \zeta - \rho_2)/p_{stn}$

τ (paper tax)

$\zeta < \rho_2 - \rho_1$ - Switch to "Semi-legal Books"

Utility per price

— Paris Guild $1/(p_m + \tau)$
- - - Semi-legal legal $(1 - \rho_1)/p_{stn}$
······ Illegal $(1 + \zeta - \rho_2)/p_{stn}$

τ (paper tax)

Predictions

- **A) Consumers for whom the additional utility** of illegal books ζ **is *lower*** than the *additional* risk associated with illegal books *with respect to* illegally imported books, will switch to illegally imported legal books as soon as $\tau > \frac{p_{stn}}{1-\rho_1} - p_m$

- **B) Consumers for whom the additional utility** of illegal books ζ **is *higher*** than the *additional* risk associated with illegal books *with respect to* illegally imported books, will switch to illegal books as soon as $\tau > \frac{p_{stn}}{1+\zeta-\rho_2} - p_m$

- As we expect there to be consumers for both case A) and case B), as well as consumers for whom ρ is prohibitively high, **we expect:**
  - **Substitution Effect:** Tax boosts the *STN* sales of illegal books (case A);
  - **Price Effect:** Tax boosts the *STN* sales of legal books (case B);
  - The tax *increase* will lead to both a substitution and a price effect by "switching" people with a higher individual ρ.

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Inflow of Illegal Books - Sasaki (2025)

(a) Diffusion by nearest dealer   (b) Diffusion by dealer with highest intensity
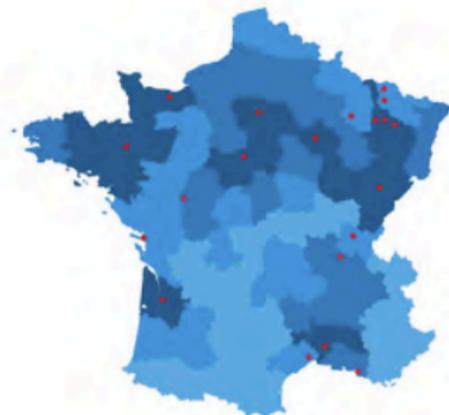
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Intensity of Revolution - Sasaki (2025)

(a) Number of émigrés

(b) Number of death sentences

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Dependent variable	All categories		Émigrés after the Revolution Nobility		Clergy		Upper middle class	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Illegal books diffused by	0.300		0.132***		0.069**		−0.002	
– nearest bookdealer	(0.307)		(0.034)		(0.034)		(0.037)	
– highest-impact bookdealer		0.308		0.132***		0.071**		−0.00003
		(0.304)		(0.034)		(0.033)		(0.036)

	All categories		Death sentences after the Revolution Nobility		Clergy		Upper middle class	
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Illegal books diffused by	0.124		0.013		0.007		0.015	
– nearest bookdealer	(0.075)		(0.010)		(0.004)		(0.012)	
– highest-impact bookdealer		0.124*		0.013		0.007		0.015
		(0.074)		(0.010)		(0.004)		(0.012)
Observations	87	87	87	87	87	87	87	87

Notes: "All categories" go beyond the nobility, clergy, and upper middle class to include others, such as the lower middle class, working class, peasants, and the unclassified. Intercept is dropped. *** denote $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.

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Distance from Neuchâtel - Sasaki (2025)
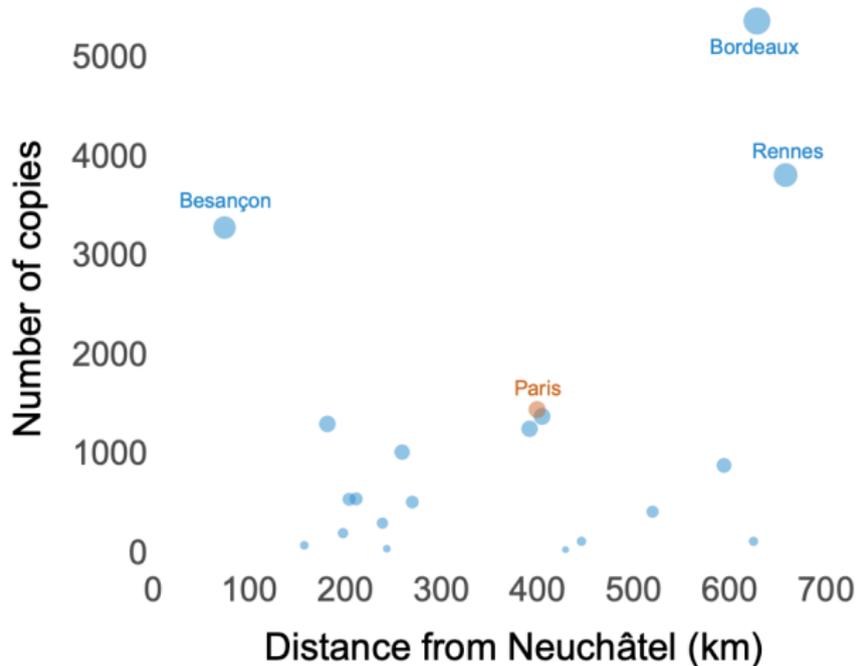
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A More Sophisticated Measure of Distance

- We can also implement a more sophisticated measure of "distance from Neuchâtel".
- We have information on the **crates** the books were shipped in.
- The names of the crates may contain information on the journey of individual shipments.
- I use the first two letters of a crate name to reconstruct paths.
- The *FBTEE* website indicates that the paths of shipments can be deduced.
- We can use distance of a town from the least-cost-path between two centers (See Weigand & Bosshard (*forthcoming*) Weigand and Bosshart (tbd))

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Path of Crate J.M. - From Neuchâtel to Marseille
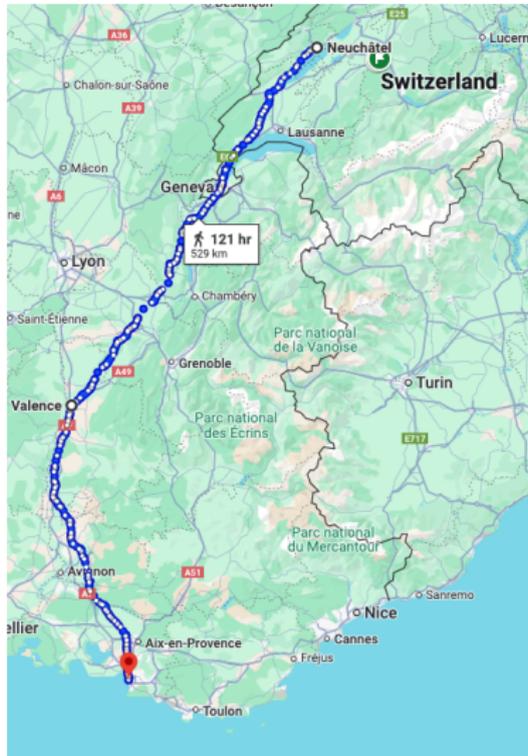
Path of Crate J.F. - From Lyon to Mannheim

Path of Crate J.G. - From Strasbourg to Bologna

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