Voting Along the Canal: Party Realignment in the Antebellum New York State

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Abstract

This paper explores the party realignment and presents causal estimates of the impacts of transportation infrastructure on town-level voting patterns in the antebellum New York State. Using a difference-in-differences approach, I compare outcomes in towns located close to the canal relative to those that were not close to the canal. In an alternative identification strategy, I construct a least-cost path connecting targeted towns as an instrument for the actual route. I find that towns located close to the canal have a higher percentage of anti-Jacksonian votes for governor. I argue that the mechanisms underlying were the development of small-scale manufacturing and the thriving commercial activity brought about by lower transportation costs, and the easier access to newspapers.

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1 Introduction

> Luther Baker was a farmer and a four-term Antimasonic committeeman for a small town called Stafford in Genesee County of New York State. He came to the place after the War of 1812 and soon had to sell his horses, sleigh, and harness to meet a land payment. Meanwhile, potash provided his only source of cash, and an oxcart took his wife to church in the county seat, when time permitted, seven miles distant. The family's fortunes had improved and the community's economy had begun to mature(Baker had acquired a team of horses and a mill) by the mid-1820s, however, Baker now plunged into Antimasonic politics. For him, as for many others in that locale, Antimasonic movement arose at the right moment for him to participate. As his son remembered later, "Up to that time he had been too much engrossed with the struggle for existence to take an active interest in public affairs." (Kutolowski, 1984)

The mid-1820s was the time when the Erie Canal opened in western New York State, and the state was completing its canal system until the 1860s. Places located close to the canal experienced faster development of small-scale mills that processed local agricultural products and the expansion of commercial activities brought about by lower transportation costs and easier access to distant markets. People, like Luther Baker, who lived in these commercial and manufacturing towns closer to the canal, who was among the rising economic gentry aimed to seize economic resources from the established economic elites, who could get updated public and political news via easier access to newspapers, and who did not have to plow and sow their farms anymore got more time and were more incentivized for political participation than remote farmers, especially since the political party's doctrines that emphasized government's active involvement in economy were in line with their economic interests.

Luther Baker's political career was a microcosm of one of the two main political trajectories in the antebellum New York State. Opposed to Jacksonian Democrats, Luther Baker

first became an Antimason and worked successively for the Whig and Republican Parties as a typical Antimasonic progression. Jacksonian Democrats believed in a limited government, while the Antimasons, Whigs, and Republicans advocated the active role government played in the economy such as transportation improvement and tariffs.

Utilizing the timing of canal opening, this paper provides a causal relationship between town-level anti-Jacksonian votes for governor and the proximity to canals. The difference-in-differences design compares votes in towns located close to the canal with towns that were not proximate to the canal over 30 years from 1830 to 1860. In an alternative identification strategy, I construct a least-cost path connecting targeted towns as an instrument for the actual canal route. I find the towns located close to the canal had a higher percentage of anti-Jacksonian (Anti-masonic/Whig/Republican) votes for governor. My findings also indicate the extent of the canal's political impact is around 20 km.

Next, I explore the mechanisms. Using the same identification strategies, I first show towns located close to the canal experienced higher employment in manufacturing and commerce from 1820 to 1845. Second, I show canal towns had a higher number of small-scale manufacturing mills. Third, canal towns had higher values of manufacturing output. Fourth, I show canal towns became commercial centers and regional distribution hubs where merchants might purchase local agricultural or manufactured goods for sale elsewhere via the canal. Finally, I show canal towns got access to more newspapers than noncanal towns.

Based on those findings, I argue that one mechanism underlying was the development of small-scale manufacturing and the thriving commercial activity brought about by lower transportation costs. The rising economic gentry aimed to seize economic resources from the established economic elites through transportation improvement.

The second mechanism I argue was the easier access to newspapers in canal towns given newspapers in the antebellum New York State played a significant role in shaping political opinion and discourse. Many newspapers were explicitly aligned with political parties, serving as platforms to disseminate party views and criticize opponents.

2 Background

2.1 Party realignment in antebellum New York State

Since the United States was founded, the two-party system existed and dominated the political history of the country, although the two dominant parties changed names and got realigned periodically. Antebellum New York State politics was not an exception and it was the prototypical example of the antebellum political history of the United States.

Based on the governor's party affiliation and Bodenhorn (2021)'s classification, New York State's post-Revolutionary and antebellum politics can be classified into four periods: the early Federalist Era to 1800; the Jeffersonian Republican Era to 1817; the Jacksonian Democratic Era to 1838 with the emergence of Antimasonic party; and the era of competitive politics between Jacksonian Democrats and, in order, Whigs and Republicans up to the Civil War. Figure 1 visualizes the party realignment.

The early Federalist Era from 1777 to 1800 featured a Jeffersonian Republican governor, George Clinton, and a Hamilton Federalist governor, John Jay. Inside the Federalist Founding Fathers, Jefferson and Madison formed a Democratic-Republican Party usually called at the time the Republican Party to oppose Hamilton's Federalist Party. The two parties differed in the rule of government in economic development. Jeffersonian Republicans believed in a limited government, especially limited economic intervention that Benson (1961) called Negative Liberalism (Laissez-faire). Hamiltonian Federalists advocated the active role government played in promoting economic development which Benson (1961) called Positive Liberalism or mercantilism. The differences persisted into eras that followed.

The Jeffersonian Republican Era was defined by Republican governors Clinton, Lewis, and Tompkins to 1817. Although it was a victorious era for Jeffersonian Republicans with some Hamiltonian Federalists converted to them, it was a time when many Republicans who no longer shared the same economic ideology began to leave and formed their political coalition.

Figure 1: Party realignment in antebellum New York State

Notes: The thick arrow means major flow from one block to another block, and the thin flow means minor flow.

The Jacksonian Democratic Era to 1838, from 1817 to 1828 witnessed Clintonian Republicans led by De Witt Clinton and Jacksonian Democrats led by Martin Van Buren competing for control (Bodenhorn, 2021) and the emergence of the Antimasonic party. De Witt Clinton took office as governor in 1817, formed his political coalition with some Federalist landholders in upstate New York and a group of Republicans who were dissatisfied with Jefferson, and started the Erie Canal construction (Xing, 2023). Although there were internal power struggles, like Clinton vs Van Buren and Loco Focos vs Jacksonians, the majority of Republicans still believed in limited government and became Jacksonian Democrats later.

On the other hand, some former Republicans, represented by John Quincy Adams and Henry Clay, formed the National Republican Party (also called Adams-Clay Republicans or Anti-Jacksonians) with the majority of Hamiltonian Federalists. Two years after the National Republican Party was founded, there was an Antimasonic movement first emerged in western New York State in 1826 and swept across the state in the following years. Antimasons, most of whom were commercial and manufacturing workers from populous places that benefited from the internal improvement, opposed to Freemasons, most were Jacksonian Republicans, who controlled the judicial and administrational system (Kutolowski, 1984). Antimasons' enthusiasm for internal improvement and resentfulness of Freemasons positioned them as in alignment with the National Republicans, and both joined the Whig Party. Whigs and Democrats each claimed that the other was corrupt, that the other was creating a political faction, and that the other was using manipulation of economic privilege to gain and secure political power (North et al., 2009).

The era up to the Civil War featured the competitive politics between Jacksonian Democrats and, in order, Whigs and Republicans. Besides the persistent differences in governmental rule in economic development, slavery is another political topic. An abolitionist political party, the Liberty Party, was founded in 1840 and it attracted some supporters both from Whigs and Jacksonian Democrats. Later, most of the Liberty Party folded into the new Free

Soil Party. The Free Soil Party was a short-lived political party that was active from 1848 to 1854 when it merged into the Republican Party with most Northern Whigs collapsed following the passage of the Kansas-Nebraska Act in 1854. The new Republican Party adopted many Whig-style government programs such as national banks, railroads, tariffs, and veteran pensions. The opposition Democrats were not surprisingly from the majority of Jacksonian Democrats.

2.2 Antimasons and their major background

The Antimasonic Party was the earliest third party in the United States and was born in Genesee County in New York State following the disappearance of a former Mason, William Morgan. Being denied participation in local Masonic activities, Morgan planned to publish the fraternity's secret degree ceremonies in detail. The subsequent kidnapping and alleged murder of Morgan in September 1826 initially prompted a bipartisan investigation, but when the local sheriff and prosecutor resisted further inquiries, anger escalated. Meanwhile, the press followed and reported the Morgan affair in detail, exposing Freemason's deep influence in judicial and administrational systems to the public. During this large-scale public investigation, county sheriffs, prosecutors, judges, and other officials were reported as Masons and Jeffersonian Republicans.

The opposition press depicted Freemasonry as an exclusive, secretive, non-denominational, non-evangelical organization that offended the region's majority evangelicals when the region was recently burned-over by the Second Great Awakening (Cross, 1965). Furthermore, the Antimasonic Party's message appealed to a contemporary leveling impulse: universal male suffrage, universal state-supported education, anti-slavery (but not radical abolitionism), and better treatment of Native Americans (a response to Jackson's ejection of the Cherokee), criminals, and orphans (funding for orphanages and asylums) (Bodenhorn, 2019). Antimasons' economic and political stands aligned with contemporary National Republicans' and later Whigs' perceived role of active government in the economy. The two governors of the

state in the 1840s, William Seward and John Young, were prominent Antimasons in the 1820s. When the Antimasonic Party declined, Antimasons did not fade from view and influence. Most of those communities simply transferred their Antimasonic votes to the Whig party leadership, and Whig's belief in active government dovetailed almost exactly with Antimasonry and easily maintained the political coalition (Benson, 1961).

A geographical analysis by Kutolowski (1984) points out the Antimasons were drawn from the middling and upper classes in commercial and populous towns where the level of wealth increased most rapidly. Towns that were located close to the internal improvement, the canals, gained faster growth in manufacturing, commerce, and population (Xing, 2023). Antimasonic leaders were among those by Jacksonian Democrats and the rising economic gentry aimed to seize economic resources from the established economic elites. They spoke to western merchants, mill workers, and farmers whose land value had increased to utilize political participation to gain transportation improvement, bank and bank credit that were controlled by Van Buren (Jacksonian Democrat)'s Regency (Bodenhorn, 2006), and favorable local public policy. The reform impulse from the opposing party was echoed by a splinter group inside Jacksonian Democrats. The Loco-Focos who were mostly tradesmen and small entrepreneurs believed the current system controlled by the Van Buren's Regency threatened their economic well-being (Bodenhorn, 2006).

Further pointed by Kutolowski (1984): remote farm families were less susceptible to the Antimasonry party, firstly because their economic situations were less affected by Antimasonic appeal; Second, they saw and heard less of its propaganda due to the limited transportation, and they had access to fewer political meeting places and fewer organizational outlets in general. Antimasonic newspapers that were effective in more densely populated areas could influence little in the still-primitive towns; Third, living on subsistence-debtor farming, they lacked discretionary time for political gatherings and public affairs. However, merchants had more time to meet, to ponder, and to embrace Antimasonry's doctrines.

3 Data

Most states selected governors through the legislatures rather than the popular vote; initially, only New York and Massachusetts had direct elections of governors. The New York State town-level voting data in the years 1830, 1834, 1838, 1840, 1842, and 1844 are from Benson and Silbey (2006). The employment data in the years 1820 and 1840 are from Bodenhorn and Cuberes (2018). Data in the year 1824 are from the Gazetteer of the State of New York 1824. I digitized manufacturing and commercial data in the years 1835 and 1845 from the New York State Census. I merge the two datasets with Geographic Information System (GIS) data. The boundary data for cities and towns within New York State are from the NYS Office of Information Technology Services GIS Program Office (GPO). Due to the absence of historical boundary data, the 2021 boundaries serve as the base map. Over time, the delineations of town boundaries have changed. One notable transformation is the establishment of new towns carved out from existing ones. To make the map consistent over time, data from newer towns are incorporated into their originating towns. For example, Middletown in Orange County was part of Newburgh in Orange County before 1888. In such cases, Middletown's data is merged with that of Newburgh. Another trend is that some regions have been incorporated as cities within their original town boundaries, as observed with Amsterdam city in Montgomery County, incorporated in 1885. In these scenarios, data are aligned with the contemporary township. I made town boundary adjustments in reference to the Gazetteer of the State of New York 1824 and auxiliary data from Wikipedia.

Using Geographic Information System (GIS) tools, I measure the Euclidean distance between towns and canals. The reference point for each town is its respective town hall. Distances are computed either perpendicularly from these halls to the canal or directly to the nearest canal vertex. The data for the New York State canal system are from Atack (2015). For the instrumental variable construction, I use the Digital Elevation Model with a ten-meter pixel resolution from the U.S. Geological Survey.

(a) Canal system in 1830 and share of Anti-mason vote for governor

(b) Canal system in 1834 and share of Whig vote for governor

(c) Canal system in 1838 and share of Whig vote for governor

(d) Canal system in 1840 and share of Whig vote for governor

Figure 2: Canal system and share of Anti-mason/Whig vote for governor from 1830 to 1840

(a) Canal system in 1842 and share of Whig vote for governor

(b) Canal system in 1844 and share of Whig vote for governor

(c) Canal system in 1860 and share of Republican vote for governor

Figure 3: Canal system and share of Whig/Republican vote for governor from 1842 to 1860

4 Empirical Strategies and Results

4.1 Difference-in-Differences strategy and results

To identify the effects of canals on town-level votes for governors from two main parties, I utilize the timing of opening for each canal and each section (see Table 1) and apply a difference-in-differences approach as the main empirical design. This design compares votes in towns located close to the canal (termed "canal towns") with towns that were not proximate to the canal (termed "noncanal towns") in periods between 1830 and 1860. It is specified as

Table 1: Timeline of New York State's canal system

Name	Open	Close	Section
Erie Canal	1823		Watervliet - Little Falls
	1822		Little Falls - Utica
	1825		Utica - Rome
	1822		Rome - Rochester
	1824		Rochester - Brockport
	1825		Brockport - Buffalo
Champlain Canal	1823		Watervliet - Stillwater
	1821		Stillwater - Fort Edward
	1819		Fort Edward - Whitehall
Oswego Canal	1828		Oswego - Erie Canal (Syracuse)
Cayuga & Seneca Canal	1821		Seneca Lake (Geneva) - Cayuga Lake
	1828		Cayuga Lake - Erie Canal (Montezuma Marsh)
Delaware and Hudson Canal	1828	1898	Kingston - Highland
Chemung Canal	1833	1878	Seneca Lake (Watkins Glen) - Elmira
	1833	1878	Horseheads - Corning Manor
Crooked Lake Canal	1833	1877	Seneca Lake (Dresden) - Keuka Lake (Penn Yan)
Junction Canal	1858	1871	Elmira - Pennsylvania Canal (Athens)
Chenango Canal	1837	1878	Utica - Binghamton
	1840	1878	Binghamton - Endicott
Genesee Valley Canal	1840	1878	Rochester - Mount Morris
	1841	1878	Mount Morris - Dansville
	1854	1878	Mount Morris - Cuba
	1856	1878	Cuba - Olean
	1861	1878	Olean - Pennsylvania
Black River Canal	1849	1920	Rome - Boonville
	1848	1920	Boonville - Forestport
	1855	1920	Boonville - Carthage
Oneida Lake Canal	1835	1879	Erie Canal - Oneida Lake
Oneida River Improvement	1849		Oneida Lake - Oswego Canal
Oneida Lake Improvement	1835		Oneida Lake

$$Share\ of\ AntiJacksonian\ Vote_{it} = \alpha + D_{it} + \theta_i + \phi_t + \epsilon_{it}, \quad (1)$$

where $Share\ of\ AntiJacksonian\ Vote_{it}$ denotes the percentage of Whig votes for governors for town i in years 1834, 1838, 1840, 1842, and 1844. It denotes the percentage of Anti-masonic votes for governor in the year 1830, and it denotes the percentage of Republican votes for governor in the year 1860. D_{it} is an indicator taking the value 1 for canal towns, defined as those located within 15 km of the canal, and 0 for noncanal towns. Alternative distances to the canal were used to assess the sensitivity of my estimates. θ_i is the town fixed effect, capturing any town invariant characteristics like elevation and terrain ruggedness. ϕ_t is the year fixed effect. Standard errors are clustered at the town level. α is a constant term.

Column (1) in Table 2 presents the estimated effects of the canal system on votes for governor. It reveals that canal towns had a higher percentage of Anti-Jacksonian (Anti-masonic/Whig/Republican) votes for governor in a magnitude of 2.5% more. I then exclude towns that were close to canals opened before 1830 from canal towns in column (2) and further exclude towns that were close to lakes and the Hudson River from canal towns in column (3). The canal's effects on a higher percentage of Anti-Jacksonian votes for governor still exist.

Table 2: Effects of canal system on Anti-Jacksonian votes for governor from 1830 to 1860

	(1)	(2)	(3)
	Whole canal system	Exclude canals opened before 1830	Exclude lakes and rivers
	Share of Anti-Jacksonian Vote	Share of Anti-Jacksonian Vote	Share of Anti-Jacksonian Vote
PostCanalSystem	2.511	2.363	1.967
	(1.405)	(1.423)	(1.423)
Observations	5502	4161	3822
Time FE	Yes	Yes	Yes
Town FE	Yes	Yes	Yes

Standard errors in parentheses

Next, I assess the sensitivity of my estimates to the choice of canal-town definition. Figure 4 displays 9 separate DiD regressions, derived from Equation 1, adjusting the definition of canal towns in 5km-increments from 5 km to 45 km. The effects of a higher percentage of

Figure 4: Sensitivity of DiD estimates to the choice of canal towns definition

Figure 5: Canal towns buffer of 15 km

Anti-mason/Whig/Republican votes for governor exist in towns that were located within 20 km of the canal. Once beyond 20 km from the canal, the effects gradually disappear. The main results, determined by a 15 km canal-town definition, are robust and not sensitive to marginal distance change.

4.2 Instrumental variables strategy and results

Among New York State's canals in the nineteenth century, the Erie Canal was the longest and most important one. It was built between 1817 and 1825. The town-level voting data exist after 1830. Constrained by the availability of the voting data, a before-and-after analysis is not feasible for the Erie Canal. I then used an instrumental variable approach to study the Erie Canal's effects on voting in a period between 1830 and 1860.

To construct the instrument, I adhere to a three-step process. The first step is to choose places that LCPs need to traverse. Incorporating more such places imposes stricter constraints on LCPs, reducing the likelihood of accidental canal towns. I commence by selecting only the canal's origin, Buffalo, and its terminal, Waterford, which is situated adjacent to Albany county, Saratoga county, Rensselaer county, and the Hudson River. Second, to discern the LCPs bridging Buffalo and Waterford, I employ Digital Elevation Models, which provide elevation data at a resolution of approximately 10 meters (U.S. Geological Survey, 1995). These LCPs, in their effort to minimize construction expenses, naturally align with ruggedness as calculated from elevation data. Third, I adapt the methodology of Bogart et al. (2022) to test the validity of the LCPs from an economic perspective. A simple gravity equation[1] and Flater (2022)'s algorithm are utilized to estimate the relative significance of connecting various town pairs. I measure town distances using the Euclidean distance and employ population data from the 1820s, reflecting the Erie Canal's construction era (1817-1825). Consequently, I produce a gravity index matrix for all towns from 1820, excluding New York City, given its disproportionate population size. Subsequently, I rank gravitational

[1] $G_{ij} = (population_i * population_j)/distance_{ij}$

Figure 6: Least cost path

values relative to Waterford, pinpointing Halfmoon as the town with the highest value. I then determine the town that has the largest gravitational value with Halfmoon. If the town that has the largest gravitational value with Halfmoon is Waterford, then I choose the town that has the second-largest gravitational value with Halfmoon. I persist with this iterative process until Buffalo is integrated. Inherent to the canal's design is its reliance on water; hence, I introduce a constraint. When faced with towns having comparable gravitational values, preference is given to the one in closer proximity to water resources. LCPs are not necessarily traverse the center parts of the selected towns. If LCPs approximate to those town, it's inferred that their design factored in economic considerations like population and topographical variables like ruggedness.

As depicted in Figure 6, the LCPs traverse all targeted towns, including Albany, Utica, Syracuse, and Buffalo. The LCPs almost overlap with the eastern section of the Erie Canal, exhibit slight deviations from its middle section, and largely diverge from the western section. The LCPs fit gravity towns, selected by gravity index, very well. An instructive point of reference for the LCP's plausibility is the New York State Thruway, which was constructed in 1954 by the New York State Thruway Authority. Given the technological advancements by 1954 relative to 1820, this thruway offers a more cost-efficient layout. Notably, the thruway's path largely coincides with the LCP.

Table 3 displays estimates from both OLS regressions and the IV regressions. As towns were located far away from the canal, the percentage of Anti-Jacksonian votes for governor became lower. The IV estimates are consistent with the DiD estimates.

Table 3: Effects of Erie canal operation on Anti-Jacksonian votes for governor from 1830 to 1860

	(1)	(2)	(3)	(4)
	OLS		IV	
	Share of Anti-Jacksonian Vote	Share of Anti-Jacksonian Vote	Share of Anti-Jacksonian Vote	Share of Anti-Jacksonian Vote
Distance to Erie Canal	-0.017	-0.019	-0.018	-0.026
	(0.004)	(0.014)	(0.004)	(0.014)
Observations	5568	5505	5568	5505
Time FE	No	Yes	No	Yes
County FE	No	Yes	No	Yes

Standard errors in parentheses

5 Mechanism

5.1 Sectorial transition to manufacturing and commerce

In this section, I first show canal towns had higher employment in manufacturing and commerce than noncanal towns. I apply the same difference-in-differences approach to employment data in the years 1820, 1840, and 1845.

$$Y_{it} = \alpha + D_{it} + \theta_i + \phi_t + \epsilon_{it}, \tag{2}$$

where Y_{it} corresponds to log(employment) in agriculture, manufacturing, commerce, and log(total employment) for town i in year t. D_{it} is an indicator taking the value 1 for canal towns that approximated to canals in and after the year when canals opened (see Table 1) and 0 for noncanal towns. θ_i is the town fixed effect, capturing any town invariant characteristics like elevation and terrain ruggedness. ϕ_t is the year fixed effect. Standard errors are clustered at the town level. α is a constant term common for all towns.

In Figure 7, each subfigure displays 9 separate DiD regressions, derived from Equation 2, adjusting the definition of canal towns in 5km-increments from 5 km to 45 km. Compared with noncanal towns, canal towns had more people working in manufacturing and commerce and more employment in total. Those effects gradually disappear when towns located more than 20 km from the canals.

Second, I show canal towns had more small-scale manufacturing mills compared with noncanal towns in Figure 8. The data are available in the years 1824, 1835, and 1845. Again, the effects gradually disappear when towns located more than 20 km from the canals. Table 4 shows the heterogeneous effects on different mills using 15 km as the definition of canal towns.

Third, I apply the same analysis to the values of outputs of all mills. Because the output value data are only available for the years 1835 and 1845, I restrict the canal towns to towns

(a) DiD estimates of log(employment) in agriculture from 1820 to 1845

(b) DiD estimates of log(employment) in manufacturing from 1820 to 1845

(c) DiD estimates of log(employment) in commerce from 1820 to 1845

(d) DiD estimates of log(total employment) from 1820 to 1845

Figure 7: DiD estimates of employment from 1820 to 1845

Figure 8: DiD estimates of the number of mills from 1824 to 1845

Table 4: Effects of canal system on number of manufacturing mills from 1824 to 1845

	(1) All Mill	(2) Grist Mill	(3) Saw Mill	(4) Oil Mill	(5) Fulling Mill
PostCanalSystem	2.423	0.579	1.130	0.0703	0.241
	(1.064)	(0.18)	(0.659)	(0.032)	(0.094)
Observations	2745	2745	2745	2745	2745
Time FE	Yes	Yes	Yes	Yes	Yes
Town FE	Yes	Yes	Yes	Yes	Yes
	(6) Cotton Woollen Factory	(7) Carding Machine	(8) Iron Works	(9) Trip Hammer	(10) Distillery
PostCanalSystem	-0.0631	0.365	-0.0508	0.0399	0.146
	(0.069)	(0.134)	(0.09)	(0.047)	(0.186)
Observations	2745	2745	2745	2745	2745
Time FE	Yes	Yes	Yes	Yes	Yes
Town FE	Yes	Yes	Yes	Yes	Yes
	(11) Ashery	(12) Glass Factory	(13) Rope Factory	(14) Chain Cable Factory	(15) Oil Cloth Factory
PostCanalSystem	0.0958	0.00326	0.0143	-0.000228	-0.0140
	(0.165)	(0.007)	(0.027)	(0.00019)	(0.0098)
Observations	2745	2745	2745	2745	2745
Time FE	Yes	Yes	Yes	Yes	Yes
Town FE	Yes	Yes	Yes	Yes	Yes
	(16) Dying Printing Factory	(17) Clover Mill	(18) Paper Mill	(19) Tannery	(20) Brewery
PostCanalSystem	-0.0102	-0.0766	-0.0320	-0.0828	0.0671
	(0.003)	(0.022)	(0.021)	(0.134)	(0.061)
Observations	2745	2745	2745	2745	2745
Time FE	Yes	Yes	Yes	Yes	Yes
Town FE	Yes	Yes	Yes	Yes	Yes

t statistics in parentheses

that approximated the canals that opened after 1835. They are the Chenango Canal and the north part of the Genesee Valley Canal (see Table 1). Figure 9 shows mills in canal towns had higher value of output than mills in noncanal towns, with estimates having relatively big standard deviations.

Figure 9: DiD estimates of values of all mills' output from 1835 to 1845

Fourth, I show canal towns became commercial centers and regional distribution hubs where merchants might purchase local agricultural or manufactured goods for sale elsewhere via the canal. Table 5 shows towns had fewer inns, taverns, wholesale stores, retail stores, and groceries as they were located far away from canals. Merchants might purchase local agricultural or manufactured goods from wholesale, retail, and grocery stores, and stay in inns and taverns for nights, then travel through the canal for sale elsewhere. Note the cross-sectional estimates do not mean causality but only correlation, because the data are only available for the year 1845.

Table 5: Effects of canal system on commerce in 1845

	(1) inns_taverns_1845	(2) wholesale_store_1845	(3) retail_store_1845	(4) grocery_1845
Distance to canals	-0.022	-0.342	-0.039	-0.064
	(0.005)	(0.197)	(0.025)	(0.028)
Observations	761	28	771	488

Standard errors in parentheses

5.2 Information dissemination via newspapers

In this section, I show canal towns got access to more newspapers than noncanal towns by applying the same DiD analysis using available data in the years 1833 and 1840. I restrict the canal towns to towns that approximated the canals that opened after 1833. They are the Chemung Canal, Crooked Lake Canal, Oneida Lake Canal, Chenango Canal, and the north part of the Genesee Valley Canal (see Table 1).

Newspapers in the antebellum New York State played a significant role in shaping political opinion and discourse. Many newspapers were explicitly aligned with political parties, serving as platforms to disseminate party views, and criticize opponents. During the anti-masonic movement, the press followed and reported the Morgan affair in detail, exposing Freemason's deep influence in judicial and administrational systems to the public. During this large-scale public investigation, county sheriffs, prosecutors, judges, and other officials were reported as Masons and Jeffersonian Republicans.

Figure 10: DiD estimates of the number of newspapers from 1833 to 1840

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