

Supplemental Materials for Maine’s Brownfields: Comparing the costs and contexts of rural and urban brownfields as development opportunities

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General Characteristics

Table 1: 6 Most Common 3 Digit NAICS coded Former Uses

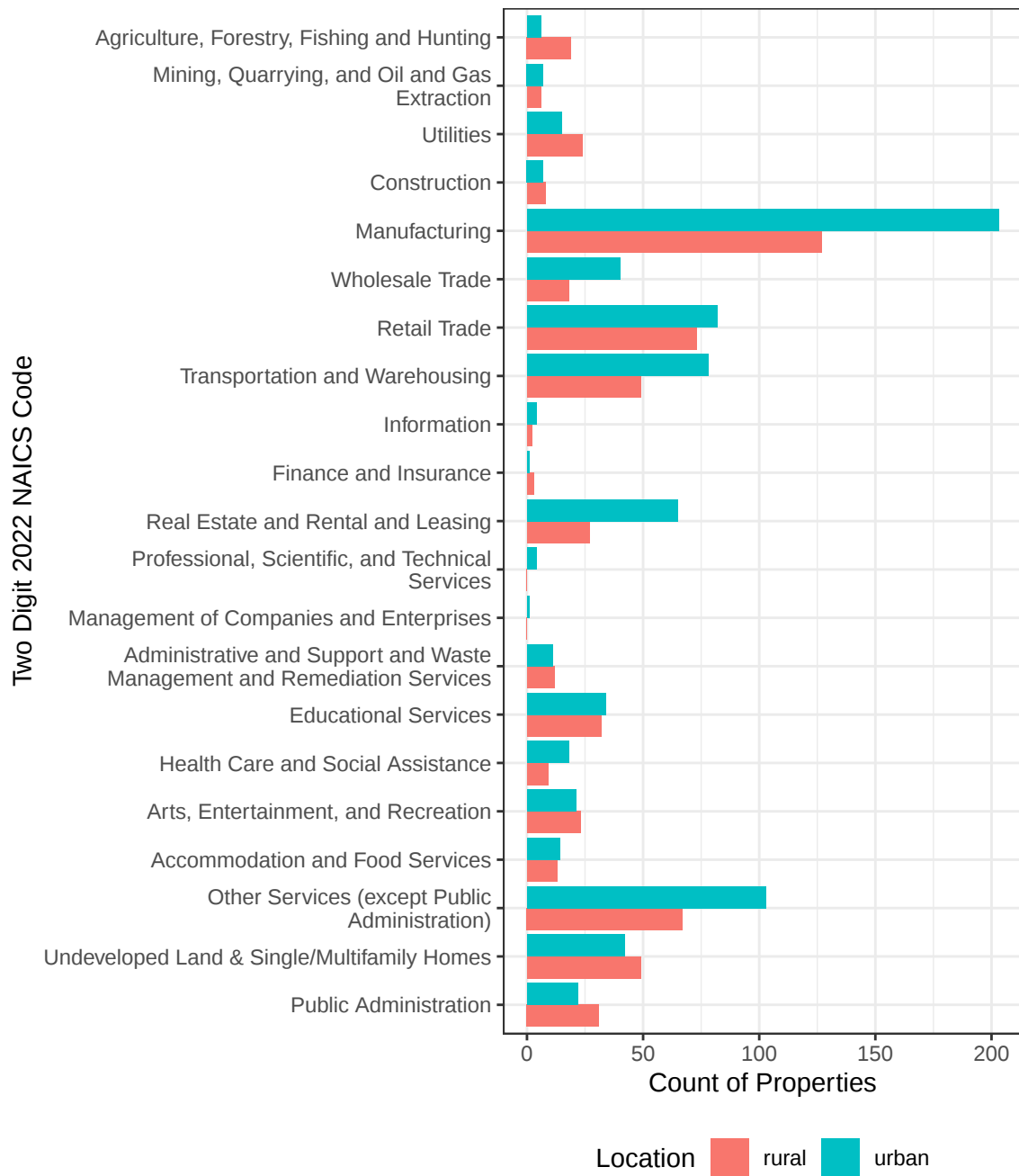
Location	Properties	NAICS Code	NAICS Description
rural	50	811	Repair and Maintenance
	45	457	Gasoline Stations and Fuel Dealers
	44	900	Undeveloped Land & small single/multifamily housing
	32	611	Educational Services
	29	531	Real Estate
	29	321	Wood Product Manufacturing
urban	78	531	Real Estate
	58	313	Textile Mills
	52	811	Repair and Maintenance
	45	812	Personal and Laundry Services
	35	611	Educational Services
	35	457	Gasoline Stations and Fuel Dealers
	35	900	Undeveloped Land & small single/multifamily housing

Table 2: Five Most Common Former Uses

Location	Properties	NAICS Code	NAICS Description
rural	44	457110	gasoline stations with convenience stores
	40	811111	general automotive repair
	31	611110	elementary and secondary schools
	23	900001	undeveloped land
	21	900000	residential property
	55	313210	broadwoven fabric mills

urban	40	811111	general automotive repair
	39	531110	lessors of residential buildings and dwellings
	37	531120	lessors of nonresidential buildings (except miniwarehouses)
	33	611110	elementary and secondary schools

Former Uses



Removed Undeveloped Land

Table 3: 6 Most Common 3 Digit NAICS coded Former Uses

Location	Properties	NAICS Code	NAICS Description
rural	50	811	Repair and Maintenance
	45	457	Gasoline Stations and Fuel Dealers
	32	611	Educational Services
	29	531	Real Estate
	29	321	Wood Product Manufacturing
urban	78	531	Real Estate
	58	313	Textile Mills
	52	811	Repair and Maintenance
	45	812	Personal and Laundry Services
	35	611	Educational Services
	35	457	Gasoline Stations and Fuel Dealers

Table 4: Five Most Common Former Uses

Location	Properties	NAICS Code	NAICS Description
rural	44	457110	gasoline stations with convenience stores
	40	811111	general automotive repair
	31	611110	elementary and secondary schools
	21	900000	residential property
	20	531110	lessors of residential buildings and dwellings
urban	55	313210	broadwoven fabric mills
	40	811111	general automotive repair
	39	531110	lessors of residential buildings and dwellings
	37	531120	lessors of nonresidential buildings (except miniwarehouses)
	33	611110	elementary and secondary schools

Anticipated Future Use

Location	Commercial	Greenspace	Industrial	Residential	Unspecified
rural	10	4	3	3	367
urban	18	10	3	5	431

Property Size

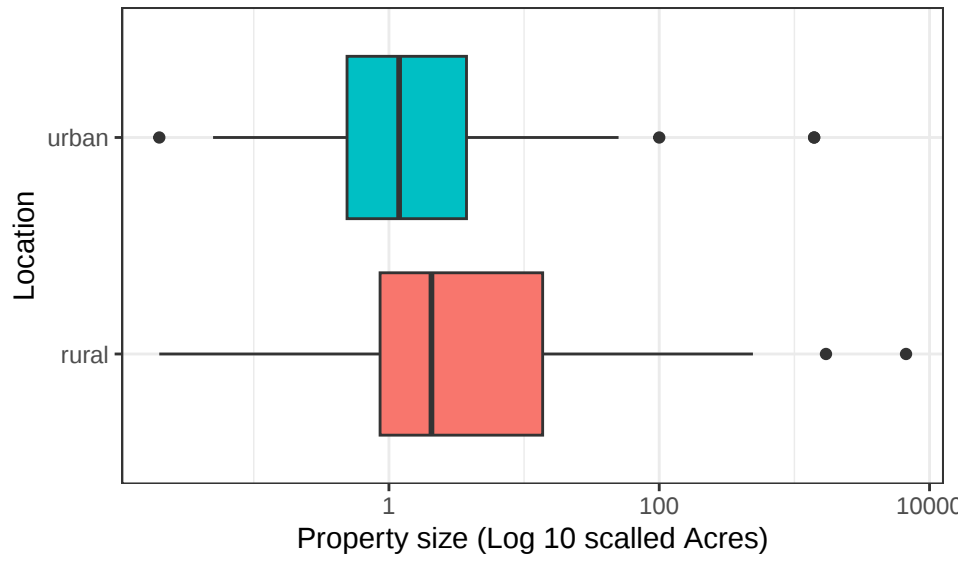


Table 6: Summary of Property Size by Location

	rural	urban
Mean	43.04	9.89
Median	2.03	1.19
SD	358.35	93.40
Min	0.00	0.02
Max	6700.00	1400.00
Properties	383.00	461.00
Properties_NA	4.00	12.00

(Only) Undeveloped Land Properties Removed

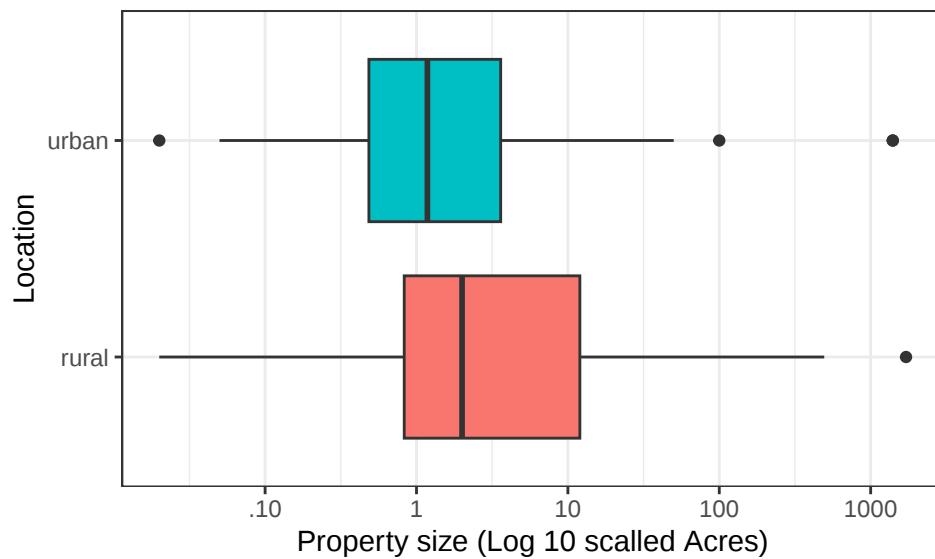


Table 7: Summary of Property Size by Location

	rural	urban
Mean	24.93	9.92
Median	2.00	1.18
SD	106.14	94.44
Min	0.00	0.02
Max	1713.00	1400.00
Properties	366.00	451.00
Properties_NA	4.00	12.00

Contaminants

Table 8: Five Most Abundant Detected Contaminants

Location	Contaminant	Properties	Percent of Total
rural	Petroleum/Petroleum Products	122	31.9
	Asbestos	114	29.8
	Lead	111	29.0
	PAHs	82	21.4
	Other Metals	70	18.3
urban	Lead	174	37.7
	Asbestos	171	37.1
	Petroleum/Petroleum Products	130	28.2
	PAHs	115	24.9
	Other Metals	97	21.0

EPA Funding

Number of Grants

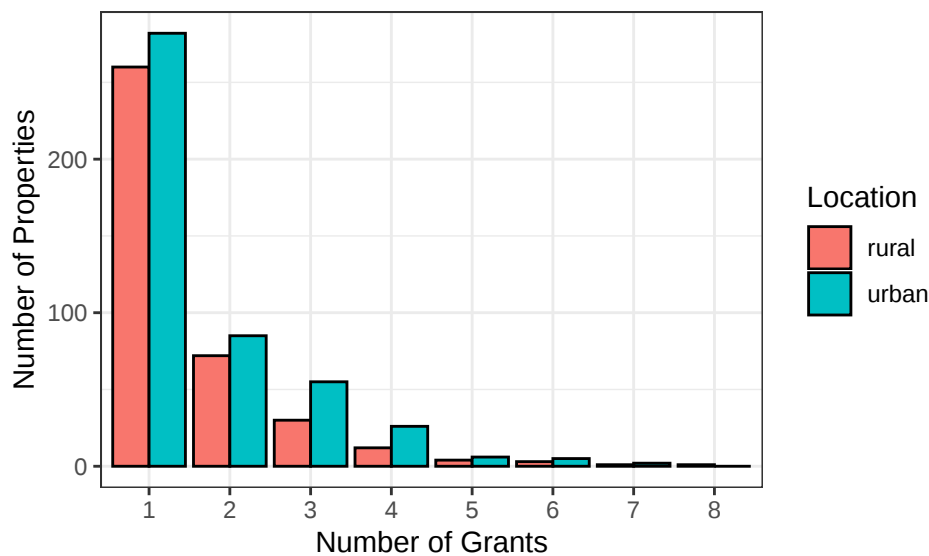


Table 9: Summary of Property Size by Location

	rural	urban
Mean	1.55	1.72
Median	1.00	1.00
SD	1.03	1.13
Min	1.00	1.00
Max	8.00	7.00

Funding per Property

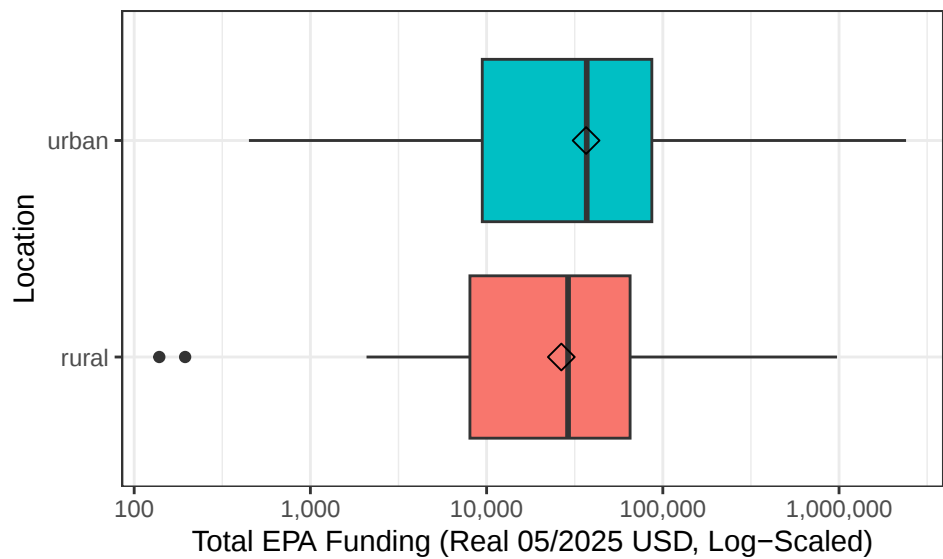


Table 10: Summary of Reported EPA Funding by Location in Real (Nominal) USD

	rural	urban
Mean	\$64,609 (\$47,239)	\$124,368 (\$90,227)
Median	\$28,510 (\$21,937)	\$33,743 (\$25,326)
SD	\$111,524 (\$79,202)	\$278,703 (\$208,749)
Min	\$0 (\$0)	\$0 (\$0)
Max	\$973,289 (\$672,712)	\$2,400,091 (\$2,334,100)

Leveraged Funds

Table 11: Leveraged Funding by Location in Nominal USD

	rural	urban
Properties	96	140
Mean	\$209,509	\$1,233,554
Median	\$0	\$0
SD	\$1,048,105	\$6,590,027
Min	\$0	\$0
Max	\$10,801,400	\$111,244,135
Total	\$80,242,145	\$568,668,730

Funded Activities

Table 12: Mean and Total Real EPA Funding by Activity

Location		Assessment				Cleanup Activity
			Phase I	Phase II	Supplemental Assessment	
rural	Count	Mean	1.16	1.28	1.23	1.43
		Total	360	321	69	309
	Funding	Reported	302	241	52	63
		Mean	\$8,708	\$41,888	\$14,763	\$175,536
		Total	\$2,629,991	\$10,095,043	\$767,701	\$11,058,775
urban	Count	Mean	1.19	1.35	1.17	1.44
		Total	459	405	111	416
	Funding	Reported	348	274	82	102
		Mean	\$8,798	\$43,320	\$20,953	\$395,205
		Total	\$3,061,758	\$11,869,716	\$1,718,196	\$40,310,997

Note: Funding in 05/2025 Real USD

Governmental Level Proportional Funding

Table 13: Mean Proportional EPA Funding by Location

Location	County	Local	Regional	State	Tribal
rural	23.99	15.86	25.08	23.46	11.61
urban	0.38	52.77	26.63	17.91	2.31

Note: Proportions calculated using 05/2025 Real USD

Redevelopment Success

Observed Successful Redevelopments

An observed successful redevelopment occurs when the EPA’s database indicates that the site is ready for reuse.

Table 14: Summary of Property Size by Location

Location	Total Properties	Ready for Reuse (Proportion)
rural	383	162 (42.3)
urban	461	124 (26.9)

Time to Redevelopment

EPA provides 3 sets of dates for a given activity at a property:

- **award_date** - award date for a grant that contributed to the property’s redevelopment (e.g. date an assessment grant is awarded for a municipality to assess properties).
- **activity_start** - date a given activity associated with a specific grant was initiated (e.g. when a phase 1 assessment was initiated on a property under the aforementioned assessment grant).
- **activity_complete** - date an activity associated with a specific grant was completed (e.g. when the phase 1 assessment was completed).

Using **award_date** and programmatic information gathered from EPA’s website¹, we created an **award_complete** variable by adding the maximum programmatic time allotted to each grant type. To assess the observed length of redevelopment we use the **award_date**, **activity_complete**, and **award_complete** dates.

The start of redevelopment is assessed as the **award_date** of the earliest awarded grant used to redevelop a property. We use this date instead of the earliest **activity_start** date for two reasons:

1. properties technically enter the administrative process of the program prior to activity commencing.
2. **activity_start** and **activity_complete** dates are often the same in the dataset for unknown data entry reasons.

The end of redevelopment is identified as either the final **activity_complete** date or **award_complete** date. If the final activity associated with a property has a recorded **activity_complete** date, we use that date. However, if the final activity has no recorded **activity_complete** date, we use the **award complete** date.

¹<https://www.epa.gov/brownfields/types-funding>

This rests on the assumption that in the absence of data entry, the activity (or phase of activity) was completed throughout the length of the grant.

	Rural		Urban	
	Unfinished	Finished	Unfinished	Finished
Mean	3.01	3.37	4.04	5.38
Median	1.88	2.19	2.55	3.46
SD	3.55	3.01	3.98	4.76
Min	0.34	0.15	0.00	0.01
Max	20.95	15.94	18.14	22.20