Chicago Metropolitan Agency for Planning

Overview of Snapshot Report on Urban Infill Development

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Environment & Natural Resources Committee Meeting

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Project Overview

- Ultimate Goals (Seven counties)
  - To determine how much land within the urban footprint is available for urban infill development throughout the region
  - Estimating the capacity of these parcels to accommodate population growth
- Scope of this study (Cook county)
  - Identify vacant and underutilized parcels
  - Create methodology for determining how much land is available for infill development in Cook county

Case study: Methodologies

Level of accuracy	Data	Methodology	Example
Level 1: Low	• Satellite imagery • Land use inventory	• Produce aggregate statistics for geographic sub-units (i.e. census tracks) • Suitable for general estimation of land supply	
Level 2: Moderate	• County assessor's record	• Easy to identify vacant parcels • Theoretical estimation of underutilized land using I/L ratio that involves certain assumptions and a margin of error • Least resource intensive	• California infill housing study • San Francisco Bay area • Seattle, WA
Level 3: High	• Aerial photography • Parcel vector data • County assessor's record	• Resource intensive	• Portland, Oregon • Maryland

Data and Methods

- Tax Assessor Data
  - Only available for Cook County
  - Did not use aerial photos or visit individual parcels (too time consuming)
  - Some Limitations and accuracy problems
- Improvement – to – Land Value Ratio

Data and Methods

- Vacant Land:
  - Identified by the assessor data (simple count)
- Underutilized Land:
  - Used a ratio of Improvement Value over Land Value
    - Parcels with ratios below a certain cut-off point would be considered “underutilized”
    - Different cut-off points for each land use
    - Limitations
      - Bias; Method may be incompatible with the nature of the land use; Over counting

Cook County Parcel Inventory

Cook	Number of parcels		Total Acreage		Average Lot Size (sq ft)	I/L ratio (Avg)
	count	%	Acres	%		
Total	***1,401,403***	**100%**	***332,766***	**100%**	***11,041***	**-**
Vacant	95,120	6.79%	34,697	10.43%	15,887	-
Exempt	84,861	6.06%	-	-	-	-
Single Family	906,086	64.66%	164,693	49.49%	7,903	4.14
Multi Family	196,612	14.03%	31,137	9.36%	6,886	7.31
Commercial	65,573	4.68%	42,902	12.89%	28,488	2.50
Industrial	27,027	1.93%	37,489	11.27%	60,337	3.55
Mixed commercial	3,106	0.22%	503	0.15%	7,067	5.80
Others	23,018	1.64%	21,346	6.41%	51,554	6.51

Data source: Cook county assessor's data (2006)

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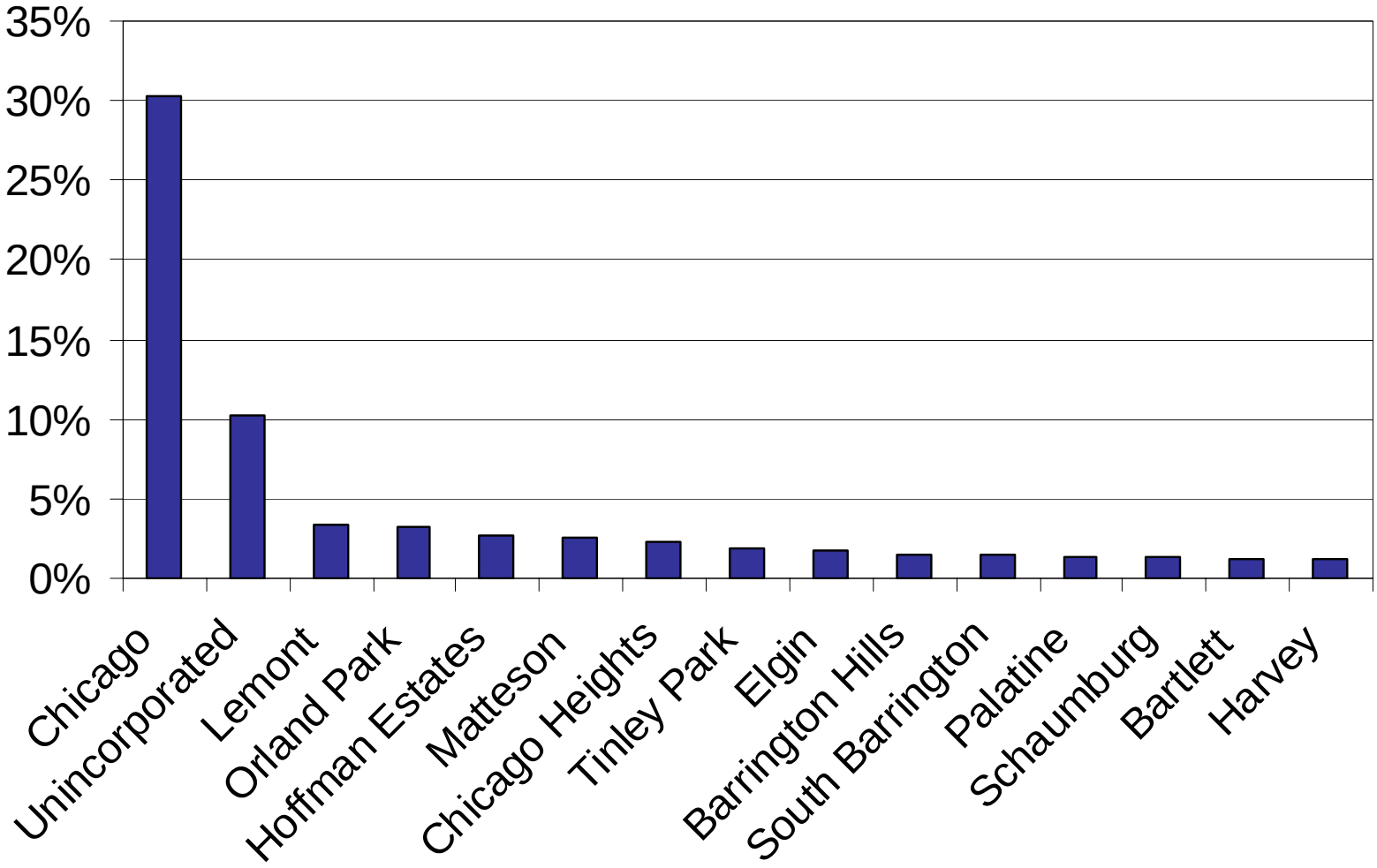
Vacant Acres as Percent of all Vacant Land



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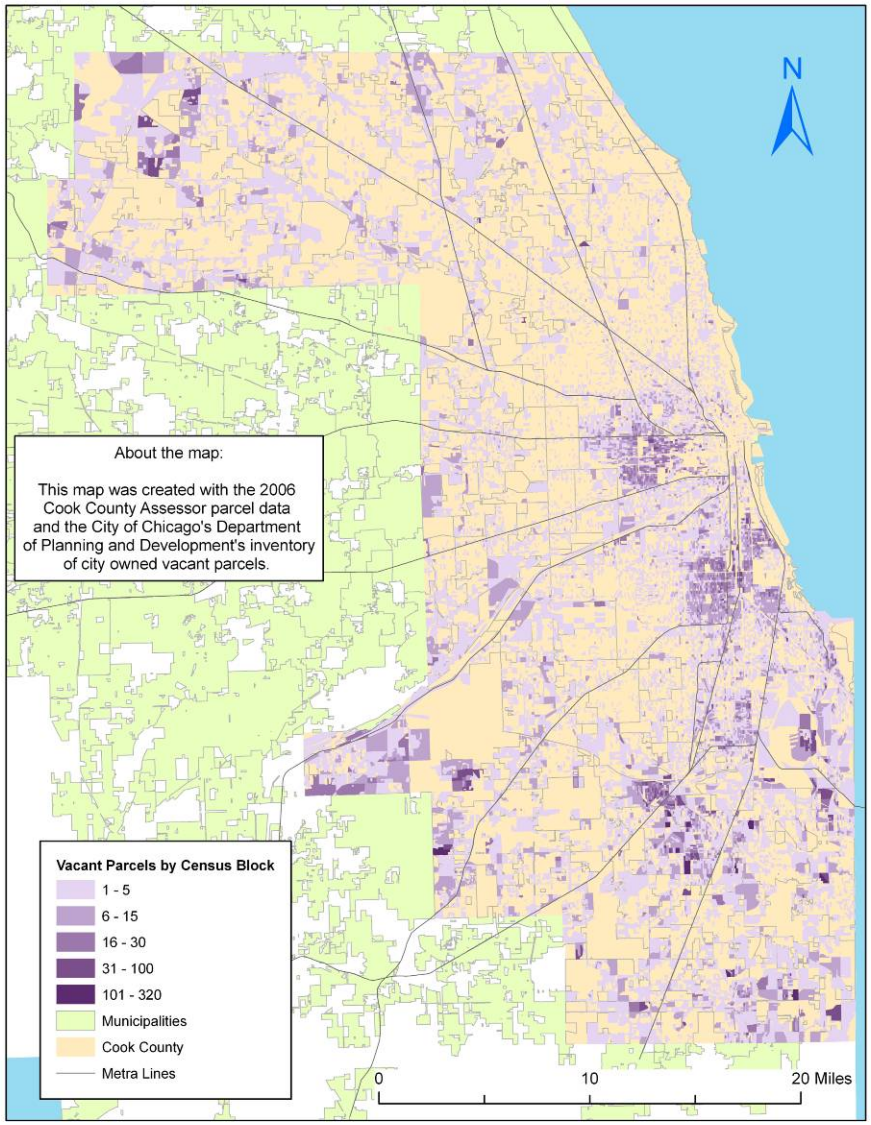
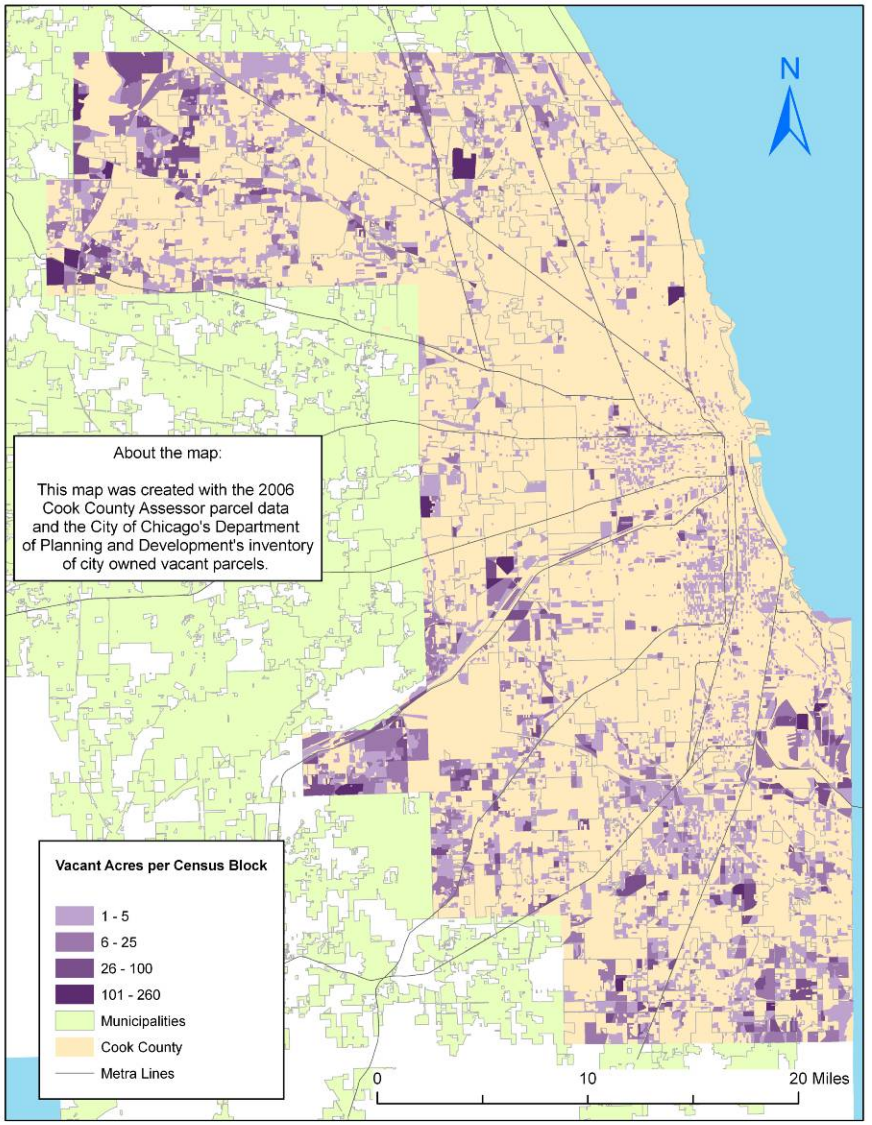
Cook County Vacant Parcels by Census Block



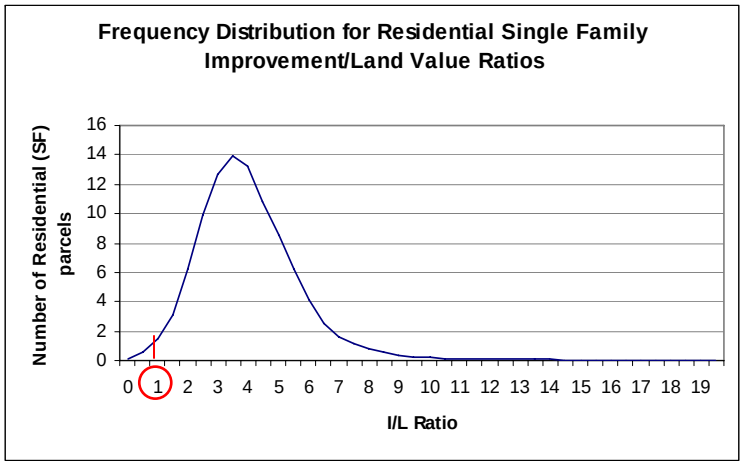
Cook County Vacant Acres by Census Block

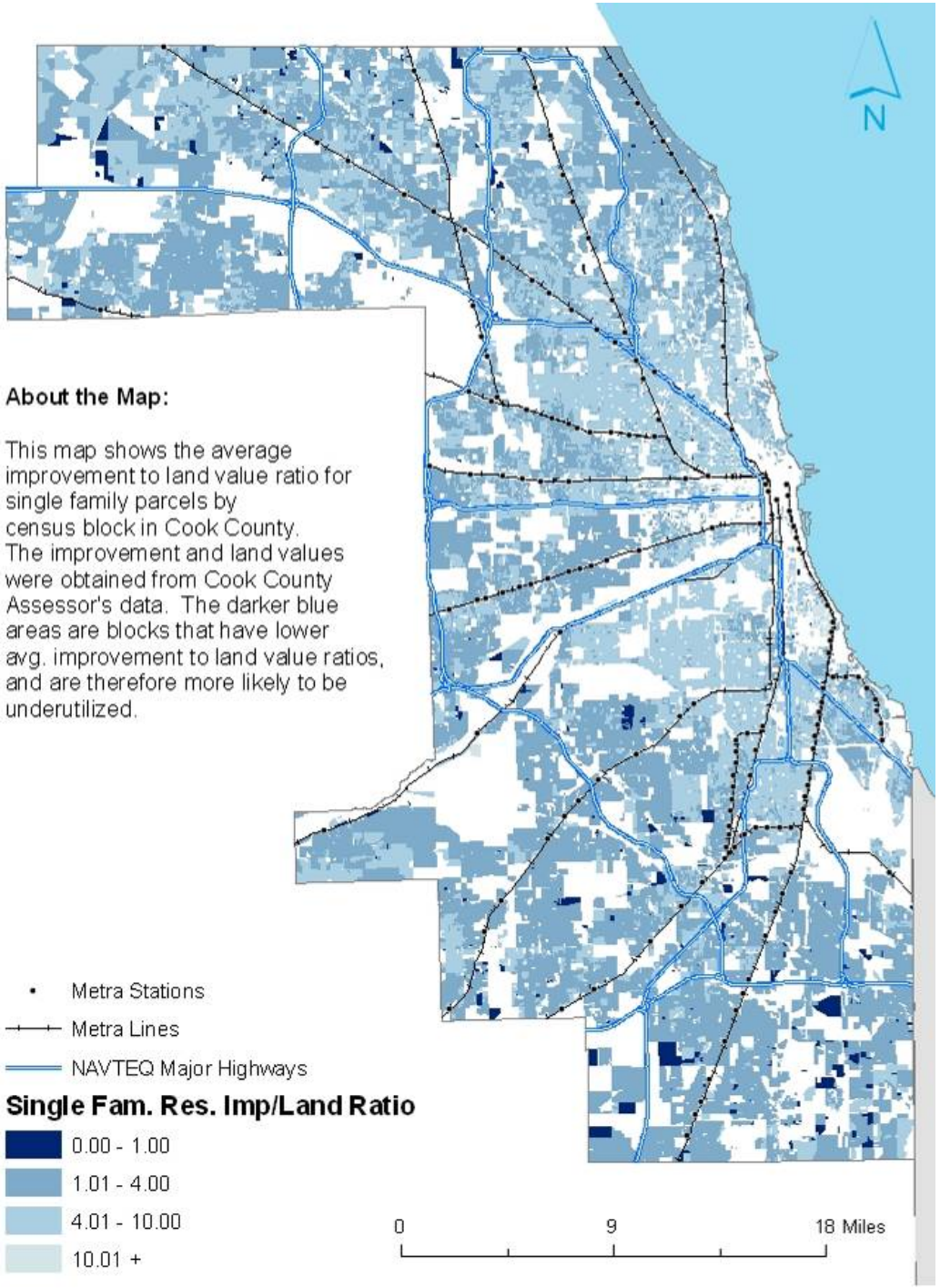


Average Imp/Land Ratio by Census Block: Single-Family Residential

Data source: Cook county assessor's data(2006)

Single Family	Count	Acreage
Total	906,086	164,693
	100%	100.0%
Developed	894,258	155,912
	98.7%	94.7%
Underutilized	11,828	8,781
	1.3%	5.3%

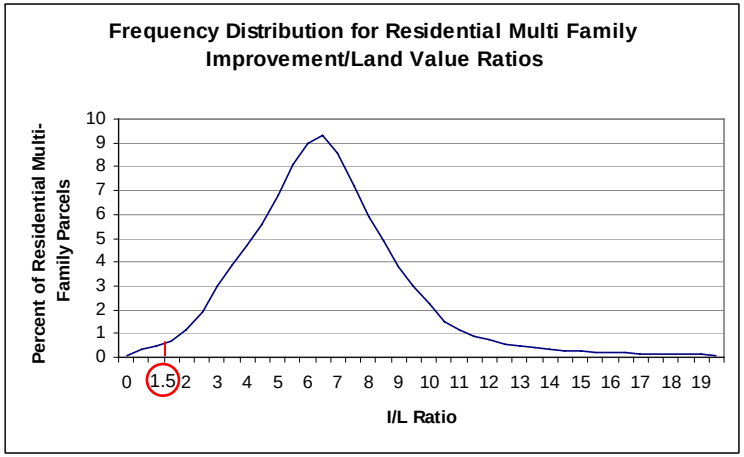


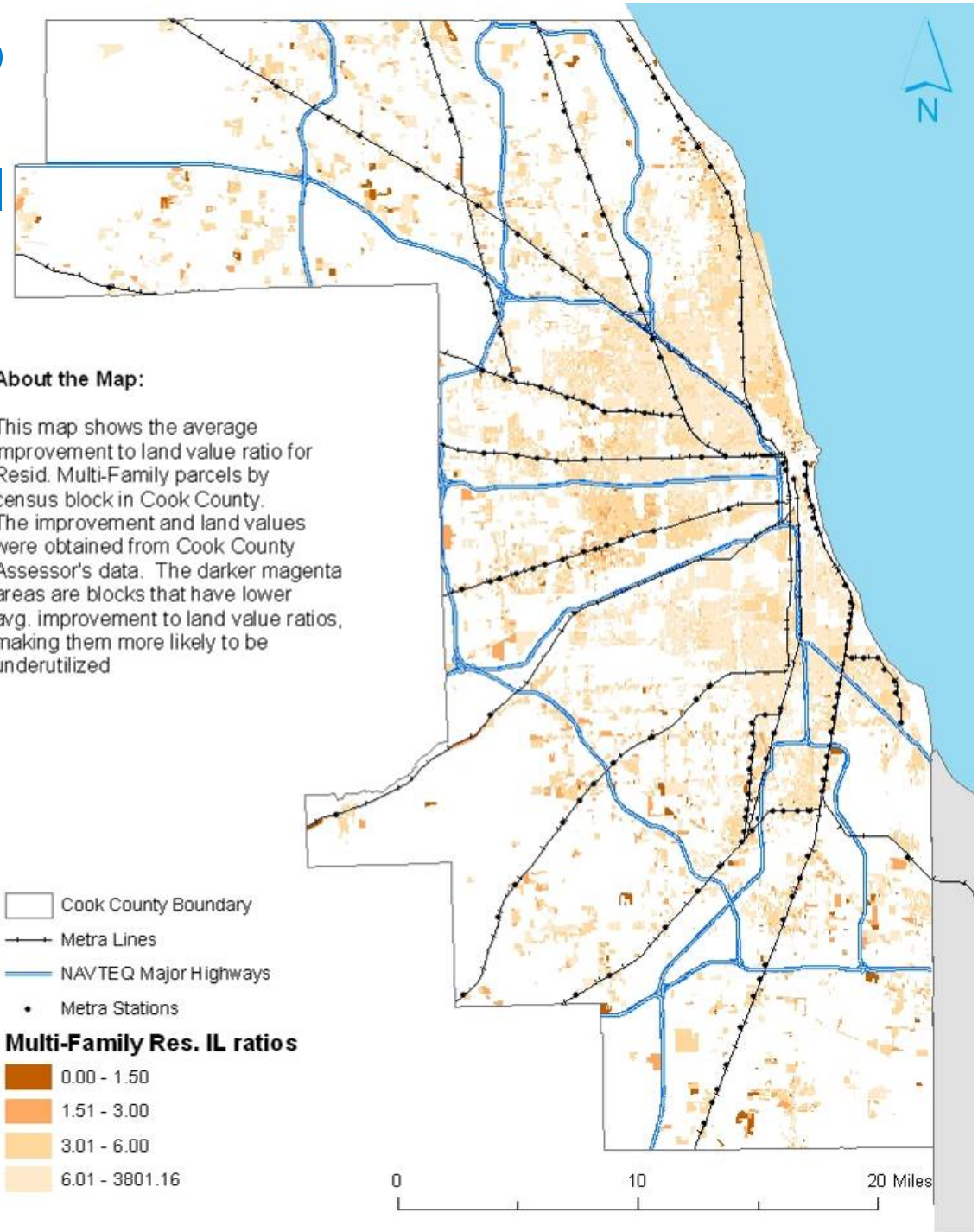


Average Imp/Land Ratio by Census Block: Multi-Family Residential

Data source: Cook county assessor's data(2006)

Multi-Family	Count	Acreage
Total	196,612	31,137
	100%	100.0%
Developed	194,139	29,908
	98.7%	96.1%
Underutilized	2,473	1,229
	1.3%	3.9%

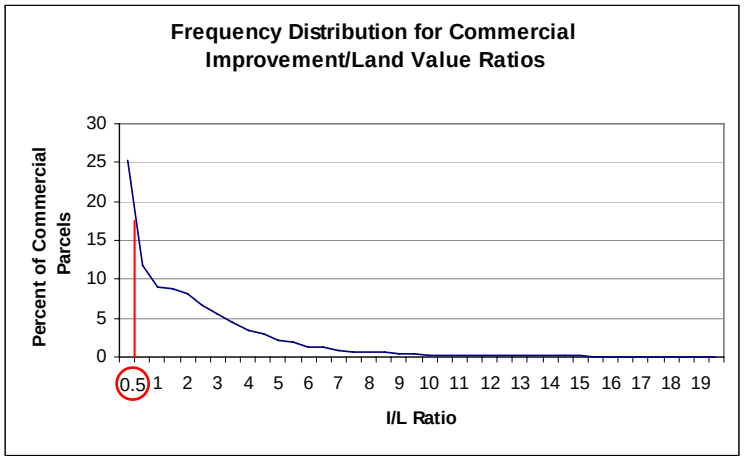


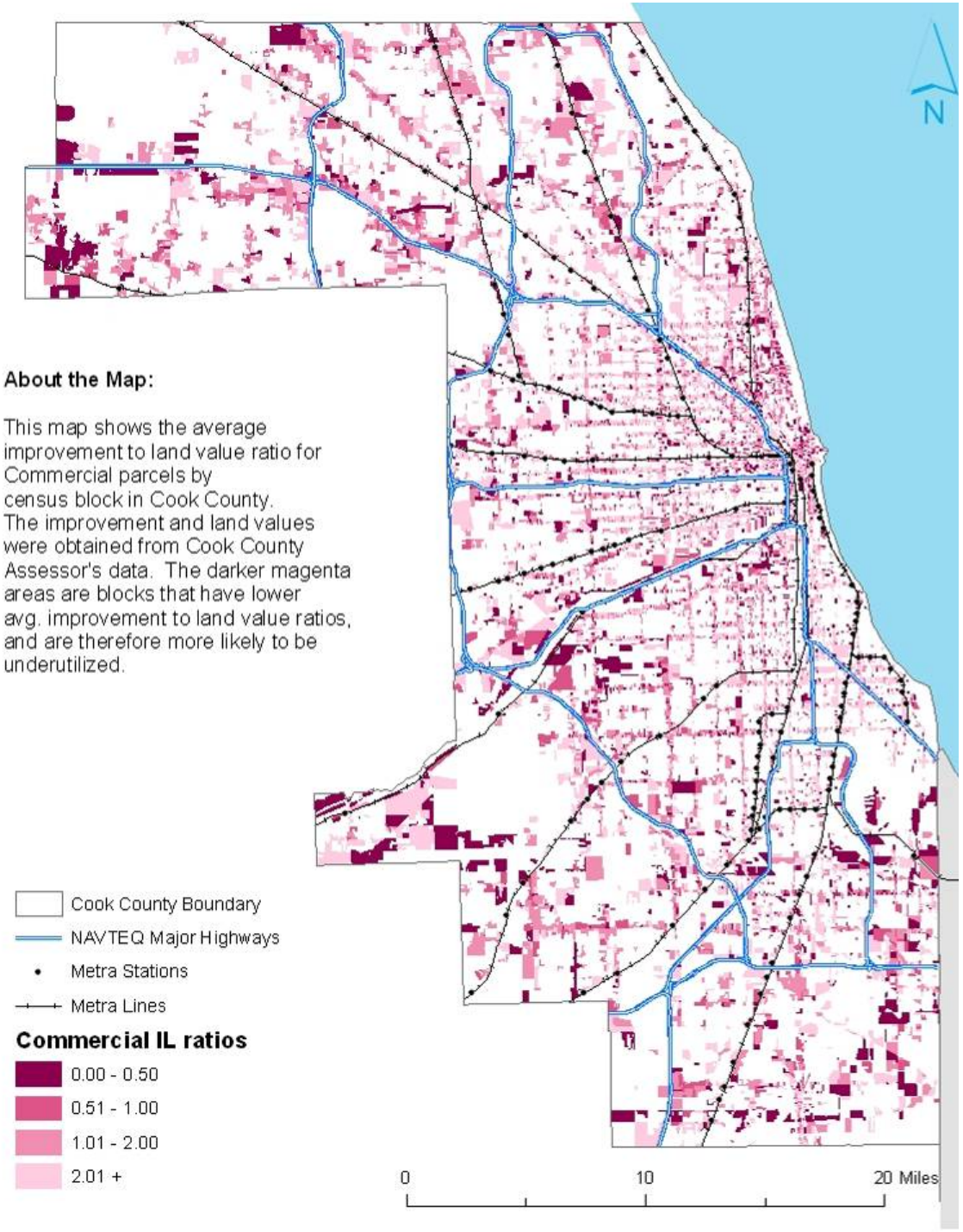


Average Imp/Land Ratio by Census Block: Commercial

Data source: Cook county assessor's data(2006)

Commercial	Count	Acreage
Total	65,573	42,902
	100%	100.0%
Developed	44,406	30,320
	67.7%	70.7%
Underutilized	21,167	12,582
	32.3%	29.3%

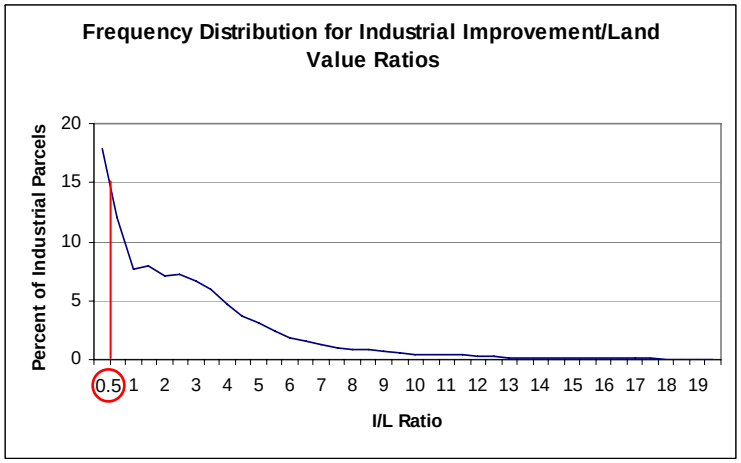


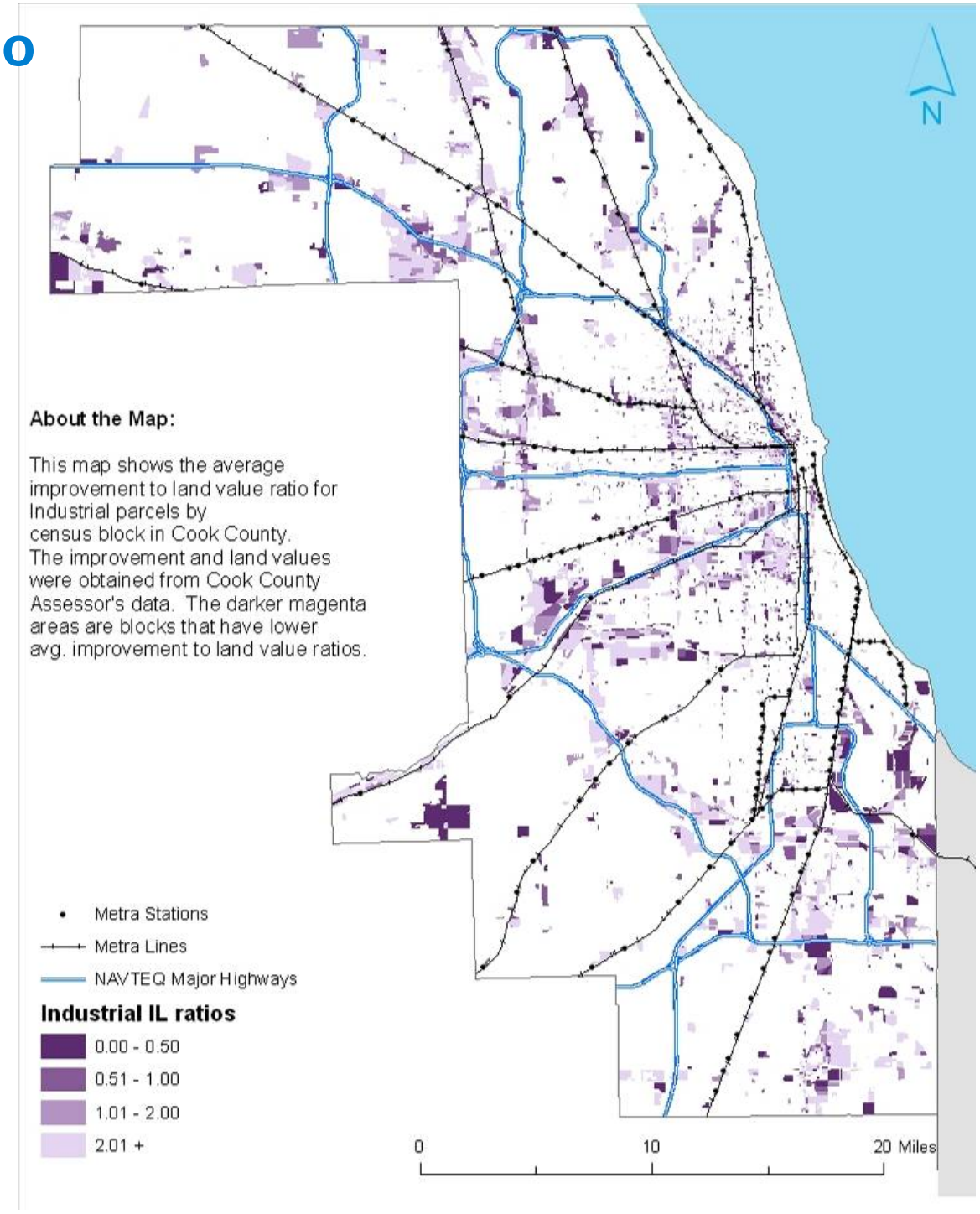


Average Imp/Land Ratio by Census Block: Industrial

Data source: Cook county assessor's data(2006)

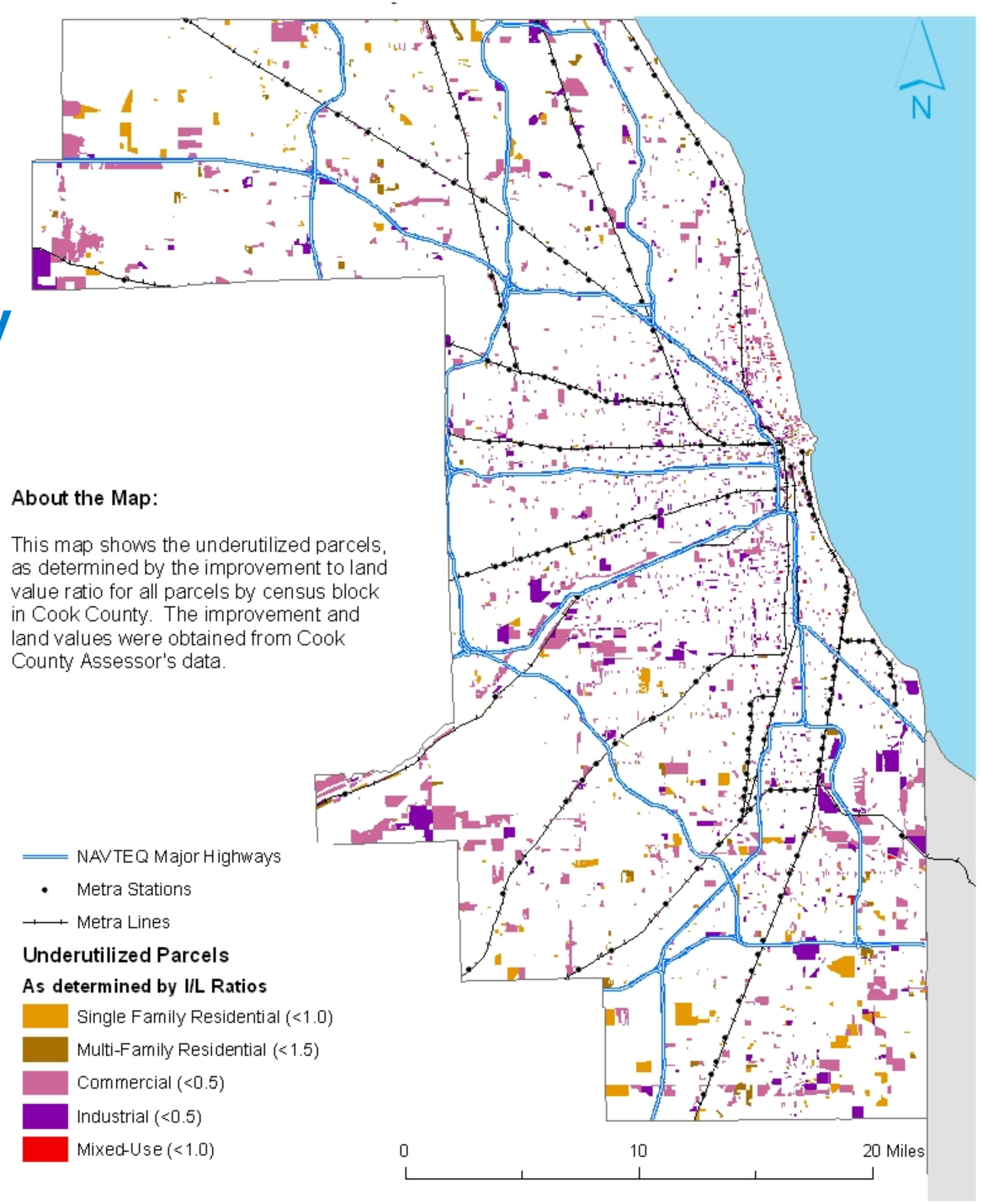
Industrial	Count	Acreage
Total	27,027	37,489
	100%	100.0%
Developed	20,193	28,514
	74.7%	76.1%
Underutilized	6,834	8,975
	25.3%	23.9%





Cook County Census Blocks with Potentially Underutilized Parcels

Data source: Cook county assessor's data(2006)



Further research

- Additional Infill Estimation Methods
  - Neighborhood analysis: GIS tool for statistical analysis of identified values
  - Compare improvement value to mean improvement value of determined area
- Expand to entire region
  - Need data
  - Define urban footprint: based on building density (Bay Area footprint: one unit per 1.5 acres or 6 structures per ten-acre parcel).

Further Research

- Calculate the capacity of identified infill land
  - Measure capacity based on forecasts and projections, using different densities
- Measure the impact of different types of development in identified infill land
  - Housing, transit, jobs, etc
- Infill Development Incentives

Questions, Comments?

- *Ideas for further research?*
- *Data availability from other counties?*
- *Density issues – how to measure, how much to "fill in," etc.*
- *Other comments?*

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Thank you!