

Illinois Needs Assessment DRAFT Current State Results

Meeting Objectives

1 Eunomia to share key findings from draft current state modeling and recommendations for the future state levers for modeling to Illinois's recovery targets

2 Advisory Council to share feedback on current state findings and proposed future state levers

Two-part agenda

Current

- Summary of key findings from draft current state
- Summary of regional residential performance

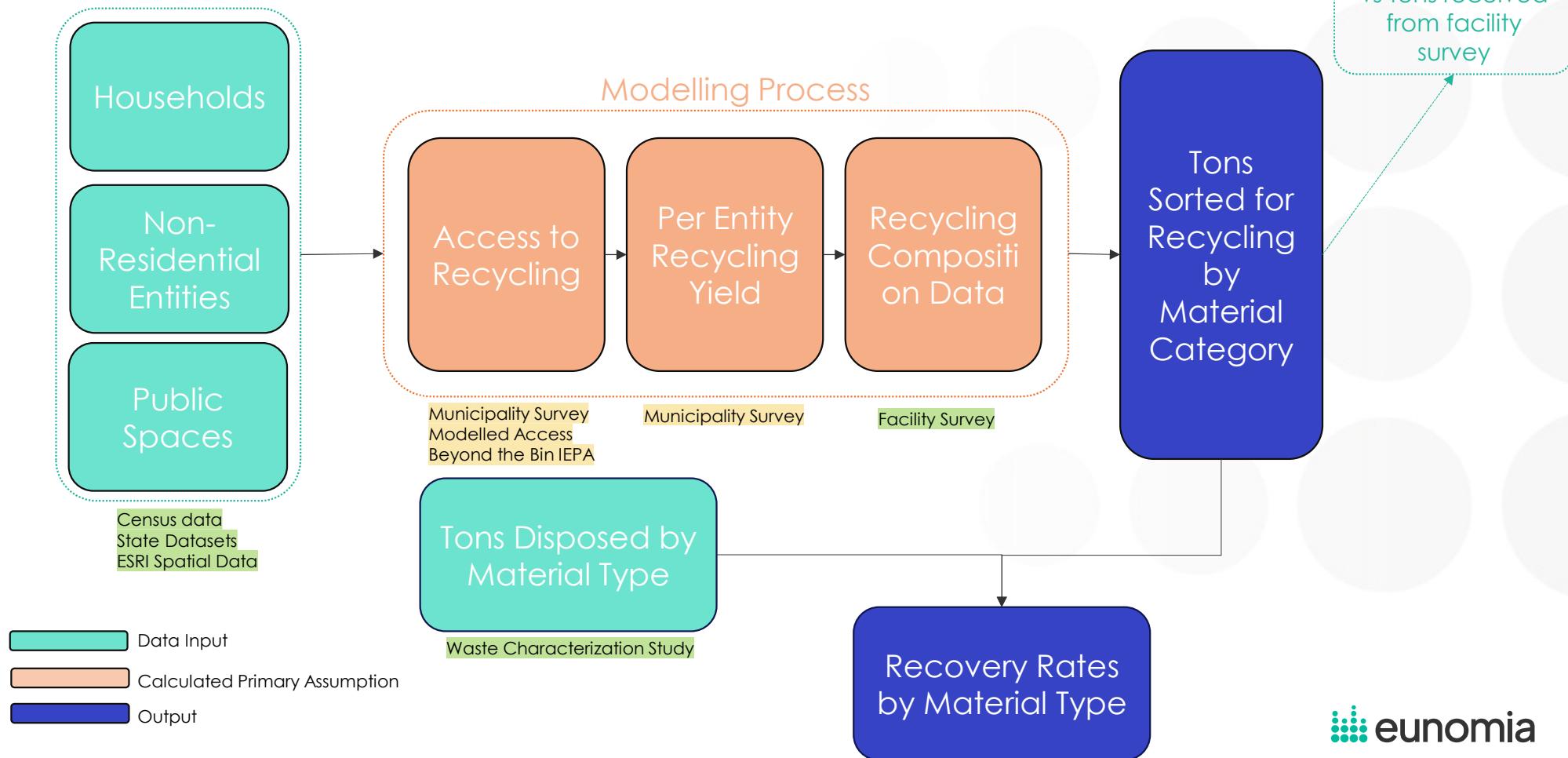
Future

- Overview of future state levers
- Recommendations for future state levers in Illinois

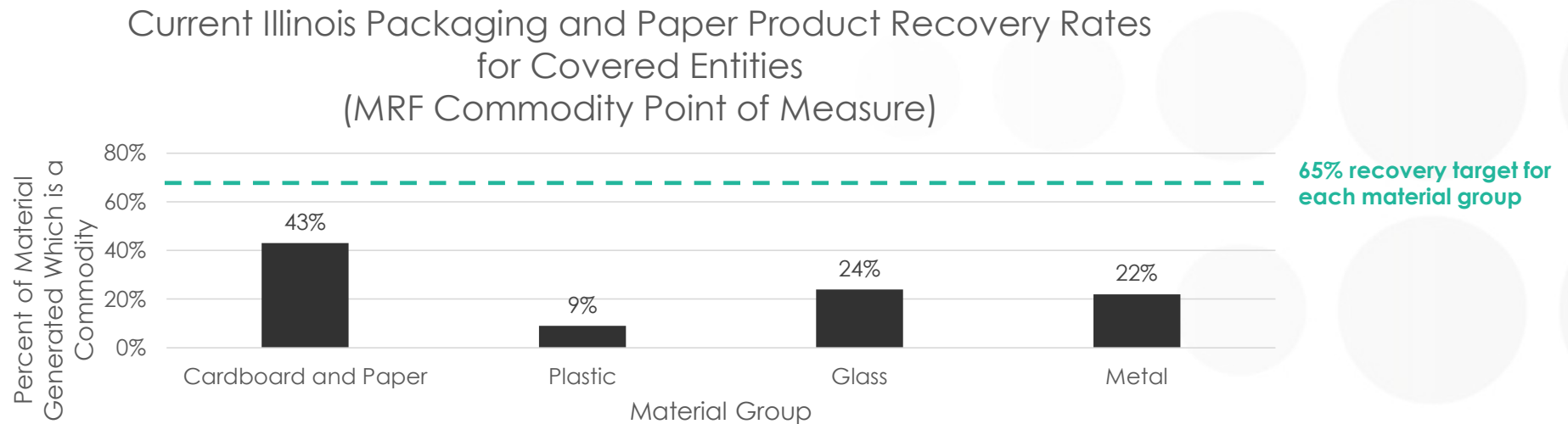


Summary of Draft Current State

Calculating Recovery Rates



Key findings from the draft current state



- **Generation:** Over 86% of covered paper and packaging waste is generated by residential entities
- **Access to services:**
 - Access to residential curbside collection varies by region: from 15% in Marion (Region 7) to 97% in Des Plaines (Region 2)
 - 82% of the population has access to a drop-off point within 15 miles
- **Material Acceptance:** High acceptability of cardboard and paper, rigid plastics, glass and metal cans. Flexible plastic and other metal packaging less commonly collected.
- **Recovery Rates:** Overall, plastic recovery rate is low with minimal film acceptance. Metal is recovery is also relatively low. Glass recover is also likely lower (see note).

Over 86% of paper and packaging from covered entities is generated by residential entities

Table 1: Number of Covered Entities in Illinois

Entity Type	1. Rockford	2. Des Plaines	3. Peoria	4. Champaign	5. Springfield	6. Collinsville	7. Marion	Total
Single-Family	194,151	2,119,193	695,331	287,330	229,754	259,918	161,461	3,947,138
Multi-Family	19,518	835,795	91,970	55,094	19,300	22,289	10,800	1,054,766
K – 12 th Grade Schools	311	2,103	381	351	237	248	204	3,835
Public Spaces*	257	3,145	316	189	103	176	83	4,269
Government Buildings	2,198	27,015	4,188	4,950	2,037	3,416	913	44,717
Total	216,435	2,987,251	792,186	347,914	251,431	286,047	173,461	5,054,725

Table 2: Tons of Packaging Generated, by Entity

Entity Type	1. Rockford	2. Des Plaines	3. Peoria	4. Champaign	5. Springfield	6. Collinsville	7. Marion	Total
Single Family	173,100	1,504,521	240,158	181,917	122,281	149,725	79,885	2,451,588
Multi Family	11,651	337,857	17,449	21,668	5,998	7,793	3,368	405,785
K – 12 th Grade Schools	18,751	191,697	23,688	18,870	11,587	15,928	8,818	289,340
Public Spaces*	555	4,583	2,062	565	553	553	722	9,593
Government Buildings	5,793	53,542	10,136	9,345	11,960	6,675	5,322	102,774
Total	209,850	2,092,201	293,494	232,365	152,379	180,674	98,116	3,259,080

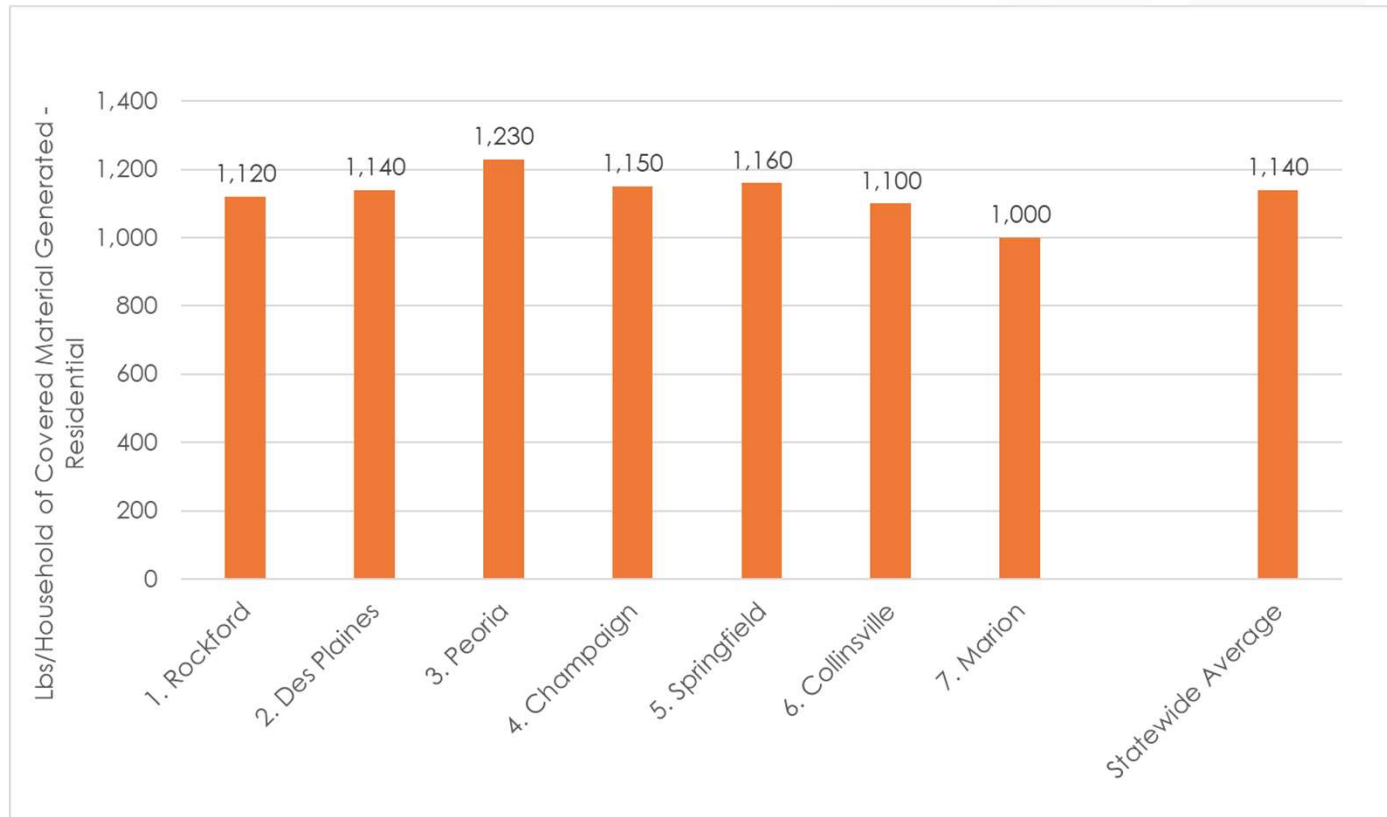
*Transit stations are not yet included in public space figures shown here. We are working to include these but expect them to be minimal.

Sources: U.S Bureau of Labor Statistics, Local Government Survey, U.S Census, Illinois Report Card, Transitland.

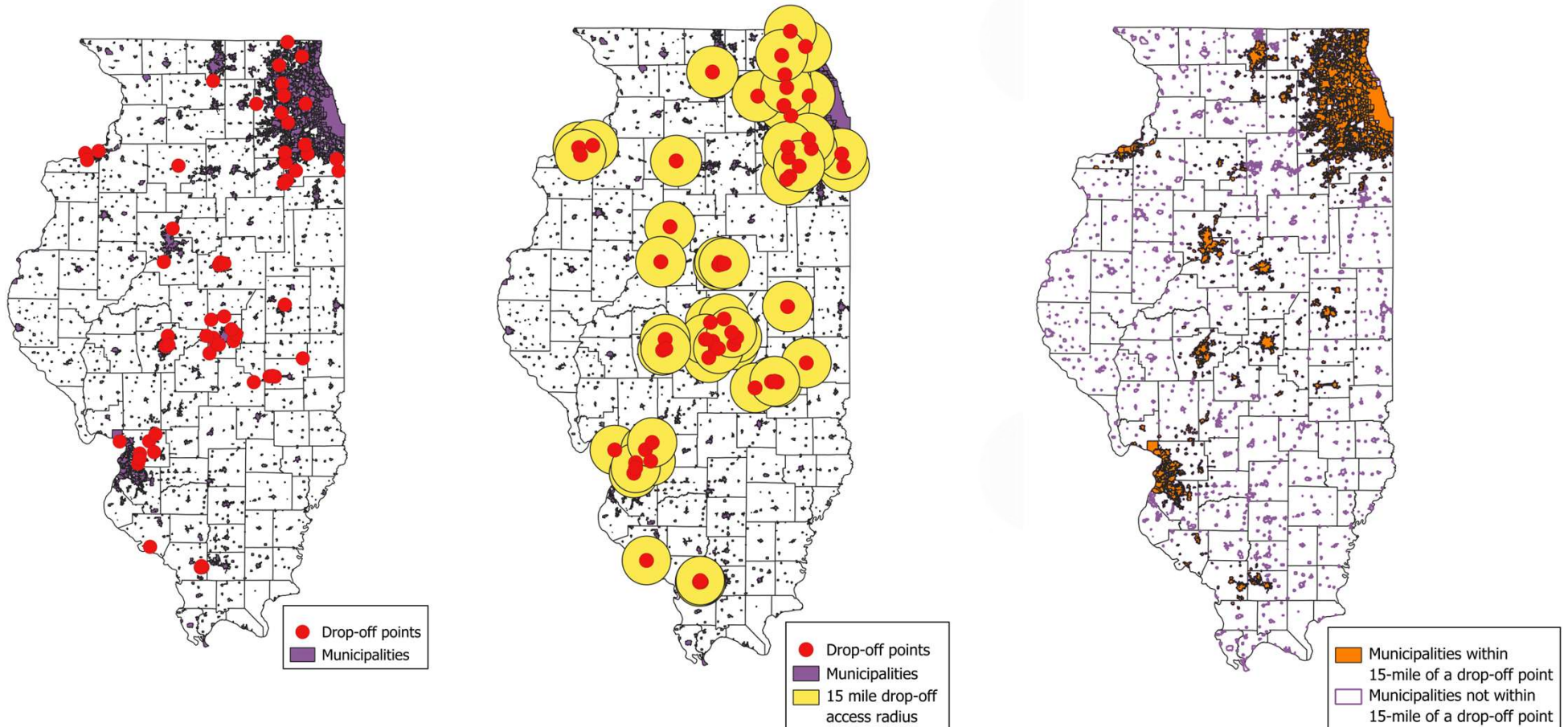


Generation	Access to services	Material acceptance	Recovery rates
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Annual Pounds per Household of Covered Material Generated - Residential



Drop Off Access Map – High proportion of households, lower proportion of municipalities are covered



Data on Curbside Access

Region	Urban vs Rural	Total Places with Curbside Access from Survey Data	Total Places Without Curbside Access from Survey Data	Total Responses
1. Rockford	Urban	7	0	7
1. Rockford	Rural	17	6	23
2. Des Plaines	Urban	96	3	99
2. Des Plaines	Rural	32	4	36
3. Peoria	Urban	11	0	11
3. Peoria	Rural	20	19	39
4. Champaign	Urban	5	1	6
4. Champaign	Rural	16	32	48
5. Springfield	Urban	1	1	2
5. Springfield	Rural	14	24	38
6. Collinsville	Urban	3	2	5
6. Collinsville	Rural	8	21	29
7. Marion	Urban	1	2	3
7. Marion	Rural	5	39	44
Statewide	Urban	124	9	133
Statewide	Rural	112	145	257
Statewide	Total	236	154	390
Survey Proportion	Total	61%	39%	100%

- Cross section of responses from regions and rurality
- Further information was appended to responses to identify trends in who has service and model the remainder of the population based on those trends. Trends include:
 - Rurality of municipality
 - Density of housing in municipality
 - Regionality
- An estimated **50-60%** of municipalities have access to curbside recycling, but an estimated **80 – 85%** of households have access.
- The Recycling Partnership in their 2024 State of Curbside Report estimated that **74%** of households in the state had access to curbside recycling.*



*[Recycling-Partnership-State-of-Recycling-Report-1.12.24.pdf](#)

Majority of households have access to curbside and drop-off recycling; however access varies by region

Curbside

Region 2 has the highest access rate of 97% and Region 7 has the lowest access rate of 16%

Table 1: Number of HH that have Curbside Access by Region

Region	Region 1: Rockford	Region 2: Des Plaines	Region 3: Peoria	Region 4: Champaign	Region 5: Springfield	Region 6: Collinsville	Region 7: Marion	Total
# of SF Households with Access	241,338	2,273,829	252,642	162,884	96,258	117,013	22,478	3,166,442
# of MF Households with Access	30,617	844,701	41,669	47,676	10,134	13,185	2,947	990,929
Proportion of Households with Access	83%	97%	70%	59%	48%	46%	15%	83%

Drop-off

49% of municipalities & CDPs (82% of the population) have access to a drop off site within 15 miles

Table 2: Number of HH that have Access to Drop-off Centers by Region

Region	Region 1: Rockford	Region 2: Des Plaines	Region 3: Peoria	Region 4: Champaign	Region 5: Springfield	Region 6: Collinsville	Region 7: Marion	Total
# Households with Access	163,794	3,061,143	277,665	211,401	94,305	204,425	53,131	4,065,862
Proportion of Households with Access	50%	95%	66%	59%	43%	72%	32%	81%



Sources: Municipality survey responses; Illinois Materials Management Advisory Committee Report to the General Assembly, Appendix G.7-Table 13; Illinois State Geological Survey, Prairie Research Institute, "Municipal Boundaries: Incorporated Places 2000"

Generation	Access to services	Material acceptance	Recovery rates
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Key Takeaways of Material Acceptance – high acceptance does not equal high recovery

1 Most categories of paper and cardboard accepted by between 80% and 100% of programs



2 HDPE, PET, other rigid plastics are accepted > 85% of the time



3 Flexible plastic accepted < 5% of the time



4 Metal cans accepted near universally. Other metal packaging (e.g., aerosols) is more varied



Sources: Municipality survey responses; Facility survey responses, percentages are of curbside recycling programs, how many accept each material.

 eunomia

Generation

Access to
services

**Material
acceptance**

Recovery
rates

Current recovery rates of paper and packaging do not meet 65% target with plastic being the lowest

- Glass and metals similar
- No flexible plastic recycling
- Other materials look standard, opportunity to divert more metals
- Non-residential rates much lower than residential

Residential Rates	1. Rockford	2. Des Plaines	3. Peoria	4. Champaign	5. Springfield	6. Collinsville	7. Marion	Total
Cardboard and Paper	44%	51%	45%	39%	36%	33%	16%	46%
Plastic	9%	11%	8%	6%	7%	6%	3%	9%
Glass	15%	35%	0%	0%	0%	0%	0%	24%
Metal	25%	26%	22%	18%	15%	15%	7%	23%
Total for Packaging Materials	30%	36%	29%	24%	22%	20%	9%	32%

Non-Residential Rates	1. Rockford	2. Des Plaines	3. Peoria	4. Champaign	5. Springfield	6. Collinsville	7. Marion	Total
Cardboard and Paper	21%	22%	23%	22%	22%	22%	22%	22%
Plastic	4%	4%	4%	4%	4%	4%	4%	4%
Glass	27%	28%	30%	28%	28%	28%	29%	28%
Metal	14%	14%	15%	14%	15%	14%	15%	15%
Total for Packaging Materials	16%	16%	17%	16%	16%	16%	16%	16%

Generation

Access to
services

Material
acceptance

Recovery
rates



Summary of Regional Residential Performance

Metrics Presented

Curbside Access

The first metric presented is the proportion of households within a region which have access to curbside recycling services

Curbside Capture Rate

The second metric will be the collection rate for households with curbside recycling service.

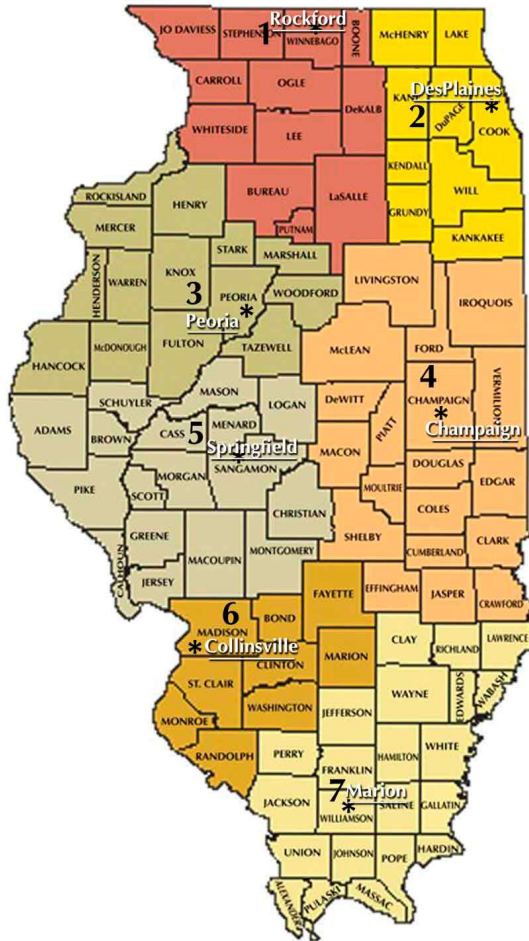
$$\text{Capture Rate} = \frac{\text{Tons Collected through Curbside}}{\text{Estimated tons generated by households with curbside}}$$

Sorted for Recycling Rate

The third metric is the sorted for recycling rate. This is the total tons of covered material sorted for recycling from all sources divided by total covered material generated.

$$\text{Sorted for Recycling Rate} = \frac{(\text{Covered material tons sorted post MRF}) + (\text{covered material tons collected at dropoff})}{\text{all covered material generated}}$$

Summary of Regional Residential Performance



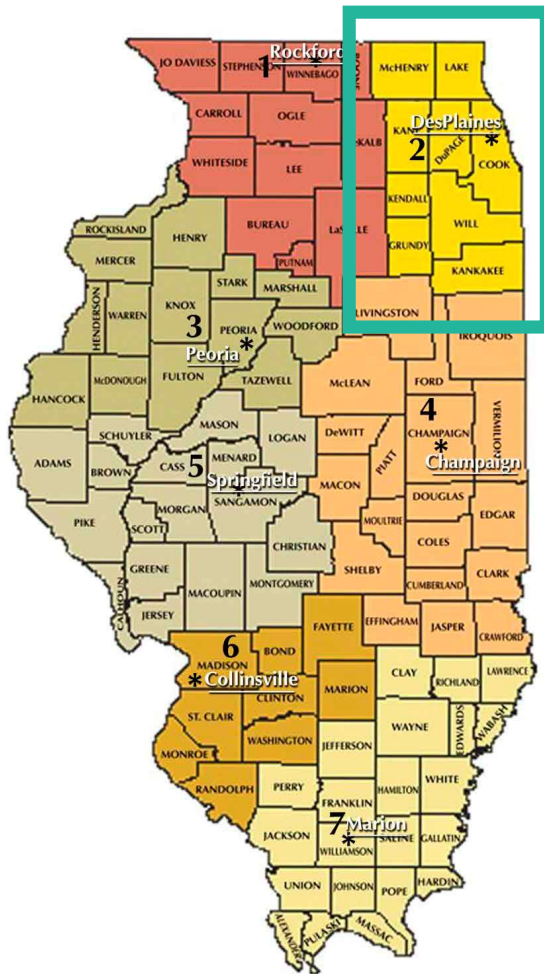
	Curbside Access (estimated % of residential households)	Capture Rate (curbside households)	Sorted for Recycling Rate (all households)
Region 1: Rockford	83%	35%	30%
Region 2: Des Plaines	97%	37%	36%
Region 3: Peoria	70%	38%	29%
Region 4: Champaign	59%	38%	24%
Region 5: Springfield	48%	40%	22%
Region 6: Collinsville	46%	35%	20%
Region 7: Marion	15%	35%	9%
Statewide	83%	37%	32%

Region 1 – Rockford Residential Performance



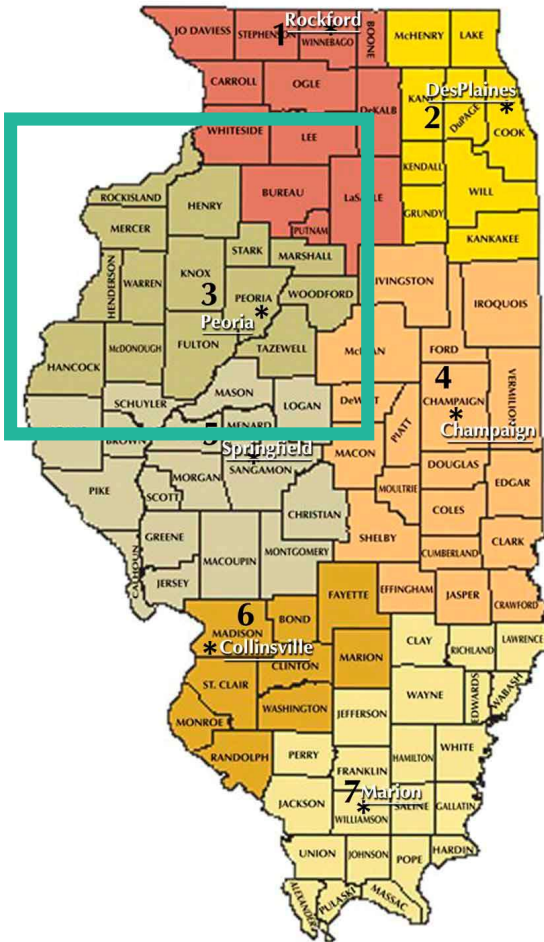
	Curbside Access	Capture Rate (curbside households)	Sorted for Recycling Rate (all households)
Cardboard and Paper	83%	50%	44%
Plastic		12%	9%
Glass		18%	15%
Metal		30%	25%
Total for Packaging Materials	83%	35%	30%

Region 2 – Des Plaines Residential Performance



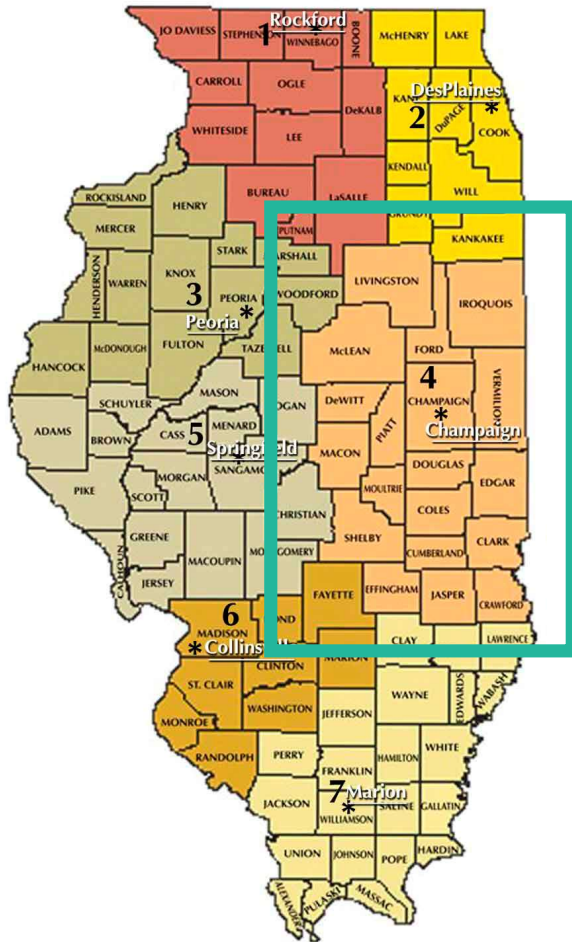
	Curbside Access	Capture Rate (curbside households)	Sorted for Recycling Rate (all households)
Cardboard and Paper	97%	52%	50%
Plastic		11%	10%
Glass		36%	35%
Metal		26%	26%
Total for Packaging Materials	97%	37%	36%

Region 3 – Peoria Residential Performance



	Curbside Access	Capture Rate (curbside households)	Sorted for Recycling Rate (all households)
Cardboard and Paper	70%	56%	45%
Plastic		13%	8%
Glass		0%	0%
Metal		30%	22%
Total for Packaging Materials	70%	39%	29%

Region 4 – Champaign Residential Performance



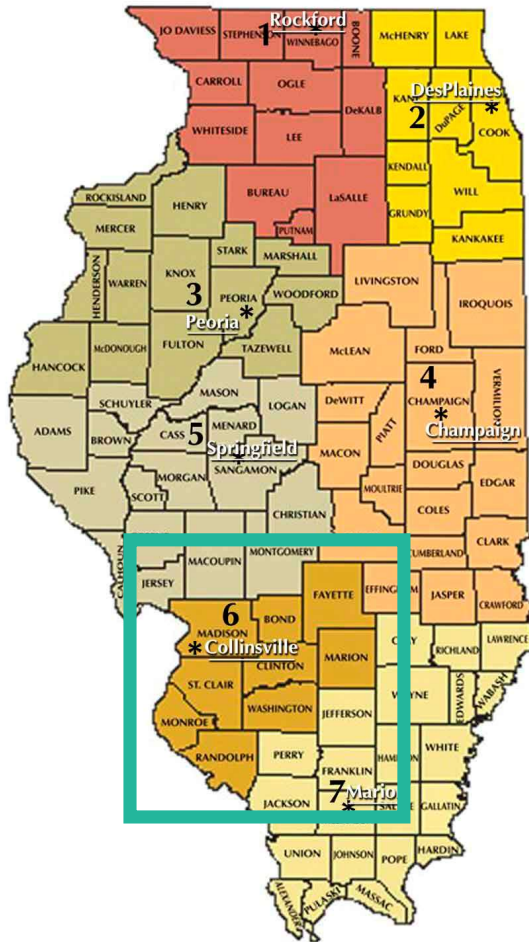
	Curbside Access	Capture Rate (curbside households)	Sorted for Recycling Rate (all households)
Cardboard and Paper	59%	55%	39%
Plastic		11%	6%
Glass		0%	0%
Metal		40%	18%
Total for Packaging Materials	59%	38%	24%

Region 5 – Springfield Residential Performance



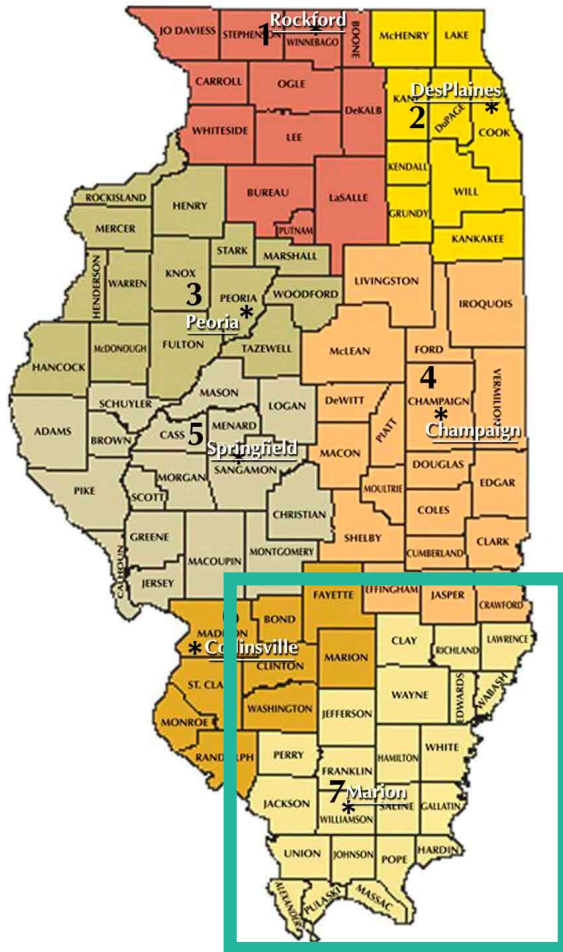
	Curbside Access	Capture Rate (curbside households)	Sorted for Recycling Rate (all households)
Cardboard and Paper	48%	56%	36%
Plastic		15%	7%
Glass		0%	0%
Metal		29%	15%
Total for Packaging Materials	48%	40%	22%

Region 6 – Collinsville Residential Performance



	Curbside Access	Capture Rate (curbside households)	Sorted for Recycling Rate (all households)
Cardboard and Paper	46%	51%	33%
Plastic		12%	6%
Glass		0%	0%
Metal		28%	15%
Total for Packaging Materials	46%	35%	20%

Region 7 – Marion Residential Performance



	Curbside Access	Capture Rate (curbside households)	Sorted for Recycling Rate (all households)
Cardboard and Paper	15%	51%	16%
Plastic		12%	3%
Glass		0%	0%
Metal		27%	7%
Total for Packaging Materials	15%	35%	9%



Overview of Future State Levers

Types of future state levers to improve recovery rates

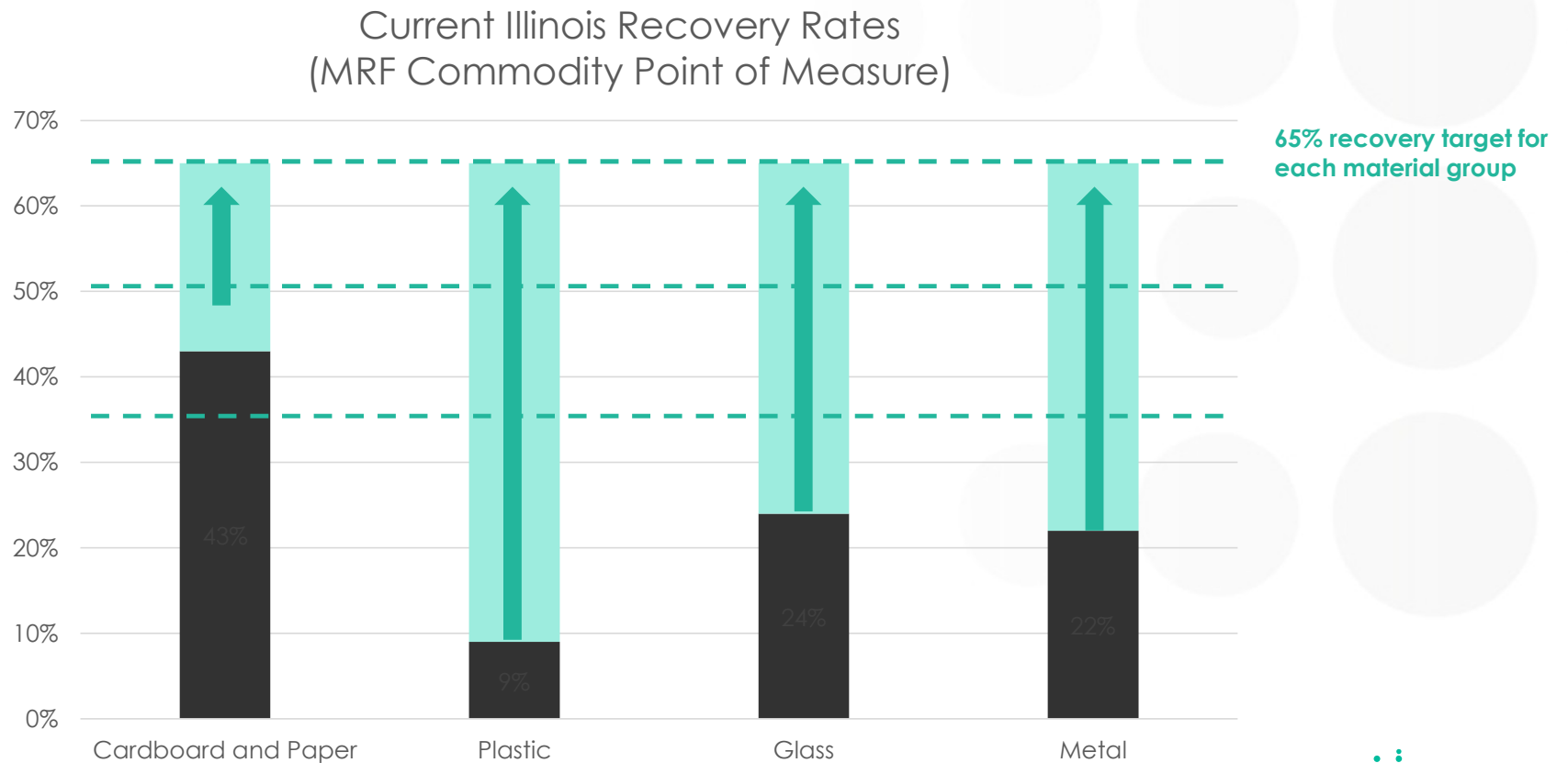
There are three types of levers related to modeling the performance and cost of a future EPR system: access, configuration, infrastructure. We've evaluated 27+ levers total. Levers were evaluated based on cost and diversion potential.

	Lever to improve recovery	Description
 Access	Collection frequency	How often are materials collected?
	Collection access	What residential/commercial properties have access to curbside and drop-off recycling
	Accepted Materials	What covered materials are accepted in recycling programs statewide? Can more materials be added to what is accepted? Can
 Configuration	Collection method	How is material collected (single stream, dual stream, etc.)
	Compliance	Level of investment to ensure waste is properly sorted between recycling and non-recycling
	Education	Level of education and awareness initiatives to decrease contamination and raise participation
 Infrastructure	Technology investments	Level of investment in MRF/Composting technology and infrastructure



Workshop: Future State Levers

How can Illinois meet the recovery targets?

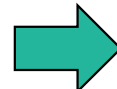
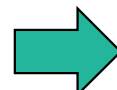
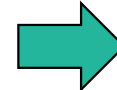
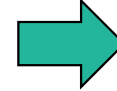
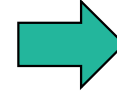


What are the high-level priorities for future state improvements?

Current State (reminder of key findings)

- Over 86% of paper and packaging waste from covered entities is generated by residential entities
- Access to residential curbside collection varies by region:
 - from 15% in Marion (Region 7) to 97% in Des Plaines (Region 2)
- 82% of the population has access to a drop-off point within 15 miles
- High acceptability of cardboard and paper, rigid plastics, glass and metal cans. Flexible plastic and other metal packaging less commonly collected.
- Overall, plastic recovery rate is low with minimal film acceptance. Metal recovery is also relatively low. Glass is likely low.

Future State

- 
- Residential waste is a priority.
- 
- Opportunity to improve access to curbside, particularly in Regions 5, 6, 7.
- 
- Ensure all municipalities with fewer than 1,500 residents have access to a drop-off.
- 
- Ensure common materials are accepted, find alternatives for materials with limited acceptance
- 
- Technology investments at MRFs to improve plastic and glass recovery.

Staggering system changes to allow for quick wins and longer lead time for more complex improvements



65% by 2035

Near term (0-5 years)

- Initial access improvement initiatives that can be established quickly
- Improved education
- Existing infrastructure upgrades

Longer term (5-10 years)

- Further improvement to access
- Adjustment to collection streams and configuration
- Advanced infrastructure upgrades and new facilities

Quantifiable Short Term Recycling Improvements (5 years)



Access

Initial access initiatives that can be established quickly, these include:

- 1 Expanding recycling access to all locations which have garbage services
- 2 Universal collection list for commonly accepted recyclables
- 3 Increased frequency of recycling to be in parity with garbage frequencies



Configuration

Changes to how collection systems are run, managed and supported:

- 1 Improved education and marketing – bin inspectors and education campaigns
- 2 Clear distinction of drop-off versus curbside versus alternative collection (e.g., retail) lists



Infrastructure

Improvements and investments to infrastructure, limited by timescale

- 1 Existing MRF/compost facility equipment upgrades for improvement in sorting efficiencies of currently collected material (e.g., Optical sorters, “last chance” lines, AI-enabled sorting tech)
- 2 Glass recycling cleanup equipment improvements

Quantifiable Medium Term Recycling Improvements (10 years)



Access

More advanced access initiatives, these include:

- 1 Expanding recycling access to *all* locations
- 2 Universal collection list for wider list of recyclables (e.g., films, cartons, aerosols)



Configuration

Changes to how collection systems are run, managed and supported:

- 1 Different streams rolled out for new households (e.g., dual stream), if MRF allows or if material can be sent straight to a recycler
- 2 AI Enabled Smart Waste Bin (e.g., Bin-E) in public spaces



Infrastructure

Improvements and investments to infrastructure, more audacious

- 1 Secondary sorting facilities such as Plastic Recycling Facility (PRF)
- 2 New recycling facilities (sorting and reclaimers)



Thank You



About Eunomia

Eunomia is an independent sustainability consultancy driven by a genuine passion to make a positive change to the clients we work with and the communities they operate in. Founded in 2001, we have been pioneers in the sector - early advocates for helping NGOs as well as leading public and private sector organisations in the UK and overseas to adapt their approach and adopt more sustainable processes.

Our consultants are experts in the field, deeply immersed in the subject with the technical knowledge and skill to offer clients innovative, clear and practical recommendations. We are committed to finding solutions to better protect the planet, while supporting the wider aims and needs of our clients.

Each client is treated as an individual, with consultants taking the time to understand their objectives and how best we can support them. This personal service ensures a strong relationship is forged, based on honest and regular communication. It also ensures if these objectives change, there is the flexibility to adapt.

As an established leading independent consultancy, clients can have complete confidence that consultants will offer evidence-led solutions based on robust, impartial thinking that offer both pragmatic and positive outcomes.