

# SUSTAINABLE FOOD MARKETS & THE ECONOMY

---

## *Illinois Composting*

*Virginia Recycling Association  
May 2017*

*Lisa A. Skumatz, Ph.D., Dana D'Souza,  
and Michael Santulli  
Skumatz Economic Research Associates  
[skumatz@serainc.com](mailto:skumatz@serainc.com); [www.serainc.com](http://www.serainc.com)*



**Food:Land:Opportunity**  
Localizing the Chicago Foodshed

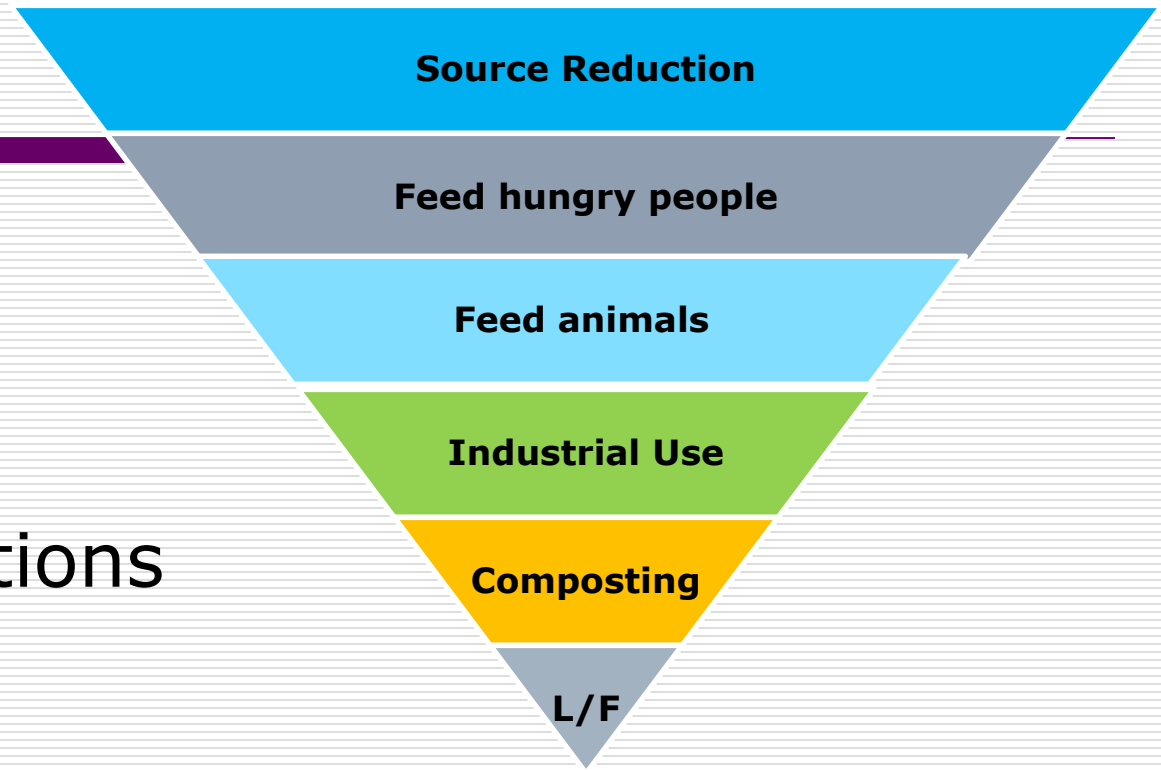
© SERA 20137 All Rights reserved<sup>1</sup>

*Information may be used by City staff if properly Cited*

**SERA**

# TOPICS

- Background
- Programs
- Job Impacts
- Recommendations
- Takeaways



*"The US sent 25M tons of food waste to landfills in 2005. The GHG impact of composting this mass would be equal to the equivalent of taking 7.8M passenger cars from the road."*

*-US Composting Council*

# PROJECT GOALS

---



- ID problems associated with landfilling organics / food scraps (FS).
- Examine solutions related to sustainable food industry.
- Examine influence of expanded FS recovery and composting programs on:
  - Improving viability of commercial composting ventures in Illinois;
  - Illinois-based food production
  - Jobs and Revenues in local Illinois food economy
- Sponsor: Seven Generations Ahead

# PROJECT STEPS

---

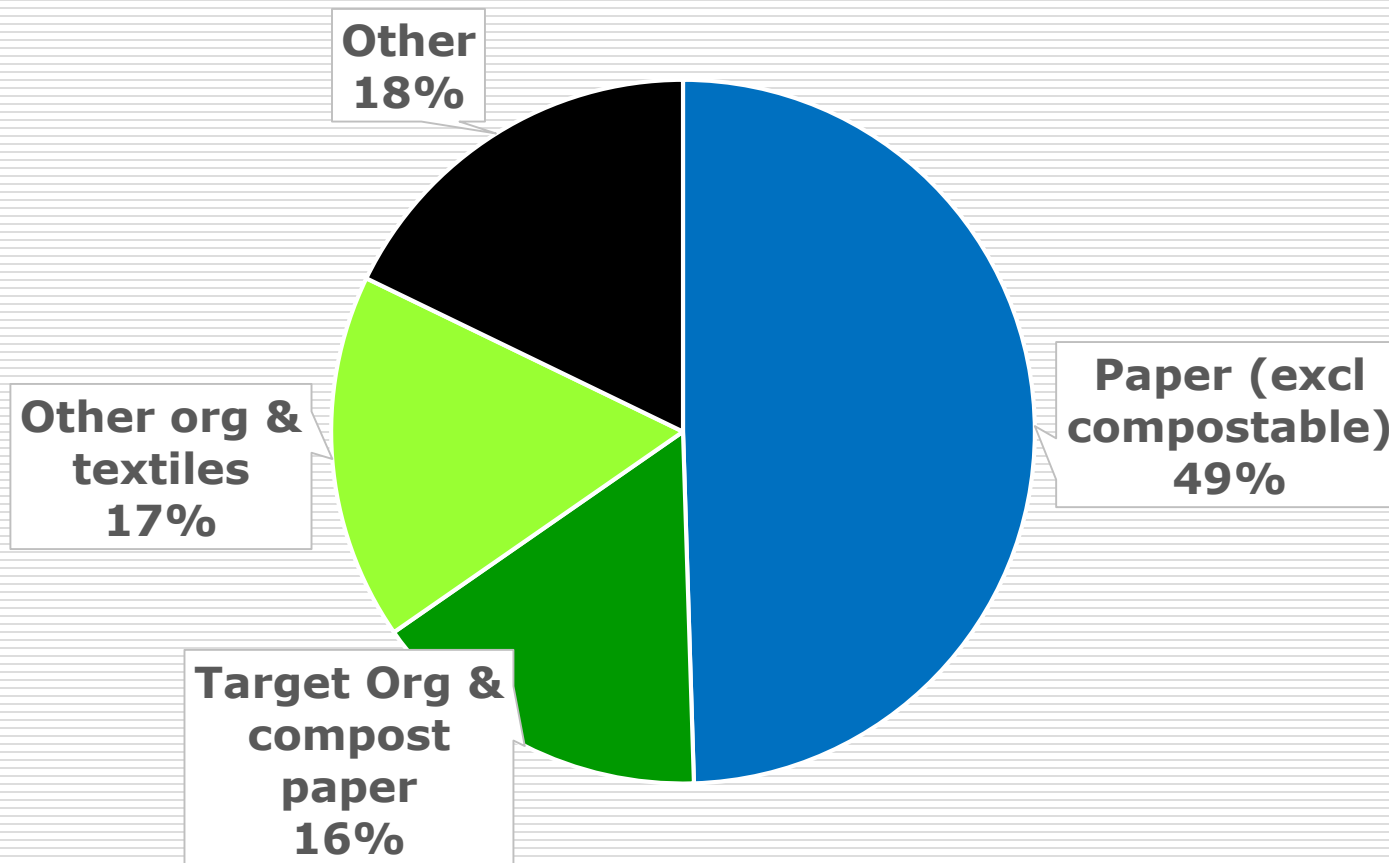
- Data on FS / compostables in Residential and Com'l disposal in IL
- National lit review, interviews to ID successful state & community FS / organics programs
- IL status quo on FS / organics management (baseline case)
- Develop programmatic options for recovering FSC (impact cases)

% Orgs in...	Res	Com'l	Total	% that is food
Generation	23%	13%	17.5%	64%
Diversion	22%	10%	16%	6%
Landfilled	29%	21%	25%	73%

# ***GHG SOURCES IN IL LANDFILLS***

---

% GHG in IL LF Materials



# PROGRAMS

---

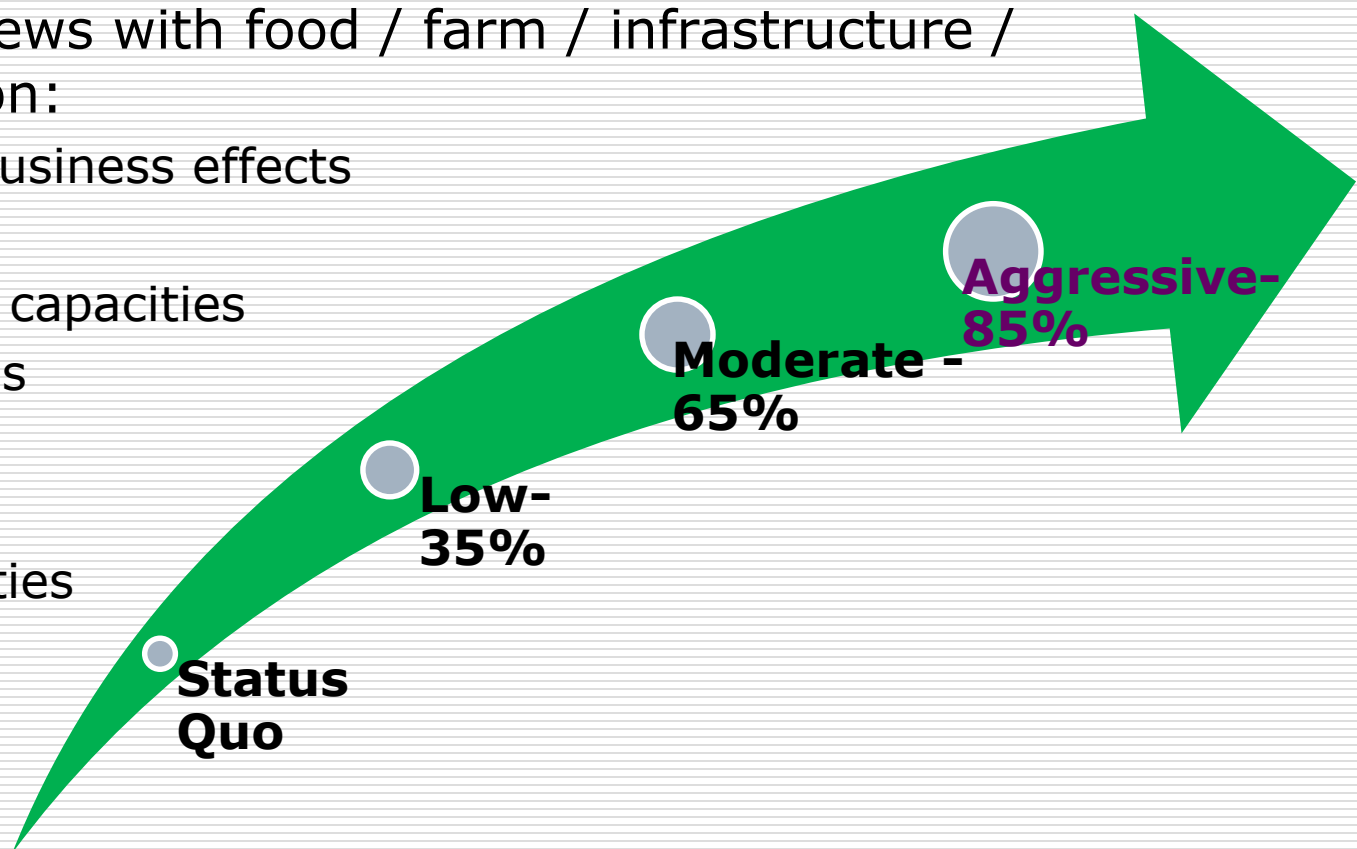


- “Piggy back” on existing YW LF Ban
- Tip fee incentives
- Residential-PAYT, Frequency
- Grants
- Urban gardens / BYC and education/ Multi-level
- Donation regulations
- Diversion goal
- Commercial PAYT / organics
- Organics requirements by business type
- Generator database
- Tracking / measurement
- Metric Percent Recoverables Remaining (PRR)

# EXPLORING SCENARIO OPTIONS

□ Detailed interviews with food / farm / infrastructure / market actors on:

- Market and business effects
- Composting
- Facilities and capacities
- Tonnage flows
- Costs
- Other effects
- Pgm suitabilities



*Increases in currently available organics stock recovered / processed, based on low, moderate, & aggressive coll'n program & policy portfolios*

# ***INPUT-OUTPUT MODELING IMPACTS ON IL ECONOMY***

---

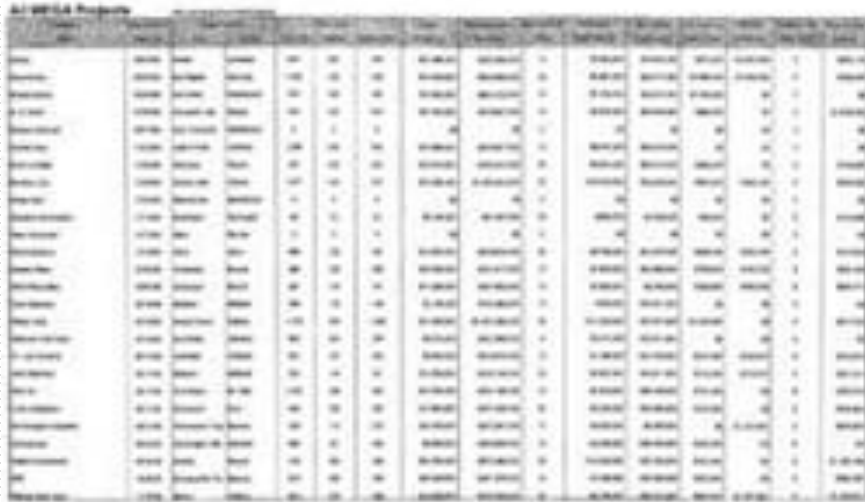
- Literature review & local / national interviews
- Able to tweak inputs and conditions incl:
  - Amount of FS collected / processed
  - Intended end-use of compost
- Modeled base case / test cases
- Modeled effects of reduced fertilizer demand
  - Economic changes; Political influence
  - Positive because spreading jobs > spraying; trade deficit, soil health, multistate action plan re excess soil nutrients



# ***INPUT-OUTPUT MODELING IMPACTS ON IL ECONOMY***

---

- Modeling Complications: Compost, collection & processing not NAICS sector
  - fragments in waste remed / chemical fertilizer mixing.
- Estimate economic impacts of policies aimed at bolstering organics collection & processing



The image shows a screenshot of a spreadsheet, likely an input-output model, with numerous columns and rows of data. The text is too small to read, but the structure suggests a detailed economic analysis with multiple variables and sectors.

# ***BARRIERS & POLICY SOLUTIONS***

---



- Complex compost facility processing – time consuming & expensive
  - Standardize food scrap processing technique for expedited permitting
  - Minimize regulatory constraints for on-farm composted materials & urban FS collection & processing facilities
  - Encourage local zoning to allow compost facilities as normal ag or com'l operation

# ***BARRIERS & POLICY SOLUTIONS***

---



- Low current demand for compost – especially for ag uses
  - Pursue grants for cost-sharing; cooperative purchasing, targeted demos
    - Market development case studies including partnerships, food hubs vs. mono-cropping, other
  - Use DOT / non-ag compost applications during low farm demand
  - Create financial incentives for ag use relative to other fertilizers
  - Develop in-depth data tracking / reporting initiative for industry at state level

# ***STRONG RESULTS & MULTIPLIERS***

---



- Composting in Illinois...
  - Employs more than existing landfilling per-ton (5x)
  - Generates more tax revenue (\$2.5-5/ton)
  - Creates businesses & jobs (1biz & 18 empl/12K tons)
  - Higher economic multiplier than LF (2.1 v.1.1)
  
- Because transporting compost long distance is expensive, two new industries emerging:
  - Urban food scraps processors
  - Rural compost spreaders
  - Opportunities for in-state mfg, locally sustained jobs, higher revenues that remain in-state

# ***OTHER POSITIVE EFFECTS***

---



- GHG reduction
- CO2 reduction from soil
- Soil conservation / fertility / disease control
- Groundwater quality / runoff mitigation
- Decreased fertilizer usage
- Increased soil productivity
- Brownfield improvement



# CONCLUSIONS

---

- Job creation, economic growth, favorable multipliers statewide
  - Additional co-benefits
- Full circle
- Key barriers that need addressing
  - Permitting
  - Compost demand
- Additional evidence / case for diversion

# **QUESTIONS? THANK YOU!**

---



Dana D'Souza

Skumatz Economic Research Associates (SERA)

[skumatz@serainc.com](mailto:skumatz@serainc.com)

303/494-1178

***Thanks for filling out surveys*** that help support analyses like these!

National: [www.garbageandrecyclingsurveys.com](http://www.garbageandrecyclingsurveys.com)