Our Future
Urban Tree Canopy

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Why tree canopy?

- It’s beautiful
- It’s comfortable and shady
- It makes me feel good
Why Tree Canopy?—Take Two

• It’s beautiful = it increases real estate values and thus tax base; it attracts citizens and businesses to your city.

• It’s comfortable and shady = it lowers building energy use; it lowers temperatures potentially limiting ground-level ozone formation; it encourages people to go outdoors, reducing crime and healthcare costs.

• It makes me feel good = it encourages social interaction; increases productivity; lowers stress; reduces healthcare costs.

• Plus many more…..stormwater mitigation, etc.
Quantify, quantify, quantify

Ecosystem Services
We need to quantify ecosystem services

- Complicated policy environment
- Limited funds
- Multiple Planning goals

Trees interact with environment

Quantify Trees

Quantify Ecosystem Services and $

Plant & Preserve

Policy needs financial constraints etc.
Even if trees were widgets, this would be a tough job

Ecosystem services vary by environment X species interactions.

Tree canopy outcome varies by environment X species interactions.
We have made huge progress in the last 25 years
The next horizon for UTC
GIS, modelling, decision-making tools
These will help us make sense of it all.
But wait....
We need data

• Effects of site, species, neighborhood, maintenance, source, etc. on survival and growth
• Policy feedbacks and their effects on the environment
• Mortality and longevity
• Management and storm damage... more policy feedbacks
• Add your own...
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Urban Tree Canopy Workshop: I have a UTC analysis…. Now what do I do?

1. Quantify Trees
2. Quantify Ecosystem Services and $
3. Policy needs
4. Financial constraints etc.
5. Plant & Preserve

Trees interact with environment
Our collective task: Chip away at the black box