

THE INAUGURAL URBAN WOOD ACADEMY

WHAT WE DID AND WHAT WE LEARNED

December 11 – 13, 2018

Prepared by Michael Galvin, Morgan Grove, Sarah Hines, and Lauren Marshall

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THE URBAN WOOD ACADEMY WORKSHOP



Dec 11-13, 2018
Baltimore, MD

BACKGROUND

Since 2012, the USDA Forest Service, Humanim, and the City of Baltimore have been working together and with a variety of additional partners to construct and pilot a diversified regional wood economy in Baltimore and beyond. The project involves wood from the **deconstruction** of abandoned rowhomes and “**fresh cut**” wood from urban tree operations – diverting wood that is often sent to the landfill and capturing its value, with the goal of creating a diversified regional wood economy that promotes sustainability, creates jobs – especially for people with barriers to employment—and improves lives. Once abandoned homes are removed, new green space can help transform Baltimore’s blighted neighborhoods and provide tree canopy in areas that are historically underserved. We continue to advance efforts locally, and are now ready to share best practices nationally, by prototyping the pilot elsewhere, with the aim of enabling full scale production of urban wood economies nationwide.

The Urban Wood Academy is a multi-day, interactive, experiential workshop designed to share best practices and lessons learned around building a networked, regional wood economy. The inaugural workshop was held Dec 11-13, 2018 in Baltimore, MD, and was hosted by the USDA Forest Service and Humanim, with engagement by the City of Baltimore, Parks and People Foundation, Quantified Ventures, and Room & Board. The Academy allows practitioners to learn directly from Forest Service staff and partners who have developed and are scaling a successful urban wood economy in Baltimore. In addition, it is designed to facilitate two-way dialogue, uncovering potential differences in how a networked, regional wood economy may be implemented in different communities, and allowing researchers in Baltimore to further refine the model. This inaugural workshop served as a proof-of-concept; based on the overwhelming positive feedback received from this pilot effort, we are making plans to host additional Urban Wood Academies on an ongoing, annual basis.

TARGET OUTCOMES

Through attending the Urban Wood Academy, participants will be able to:

- Develop an understanding of systems thinking to address complex problems
- Become familiar with the theory behind developing a successful regional wood economy, including:
 - waste diversion (waste to wealth)
 - incubating a social enterprise
 - developing public-private partnerships
 - employing principles of full-cost accounting
 - methods and tools for evaluating social, economic, and environmental impacts
 - communicating with stakeholders, policy makers, and the media
- Become familiar with the operating principles and key components necessary to build a regional wood economy (Figure 1).

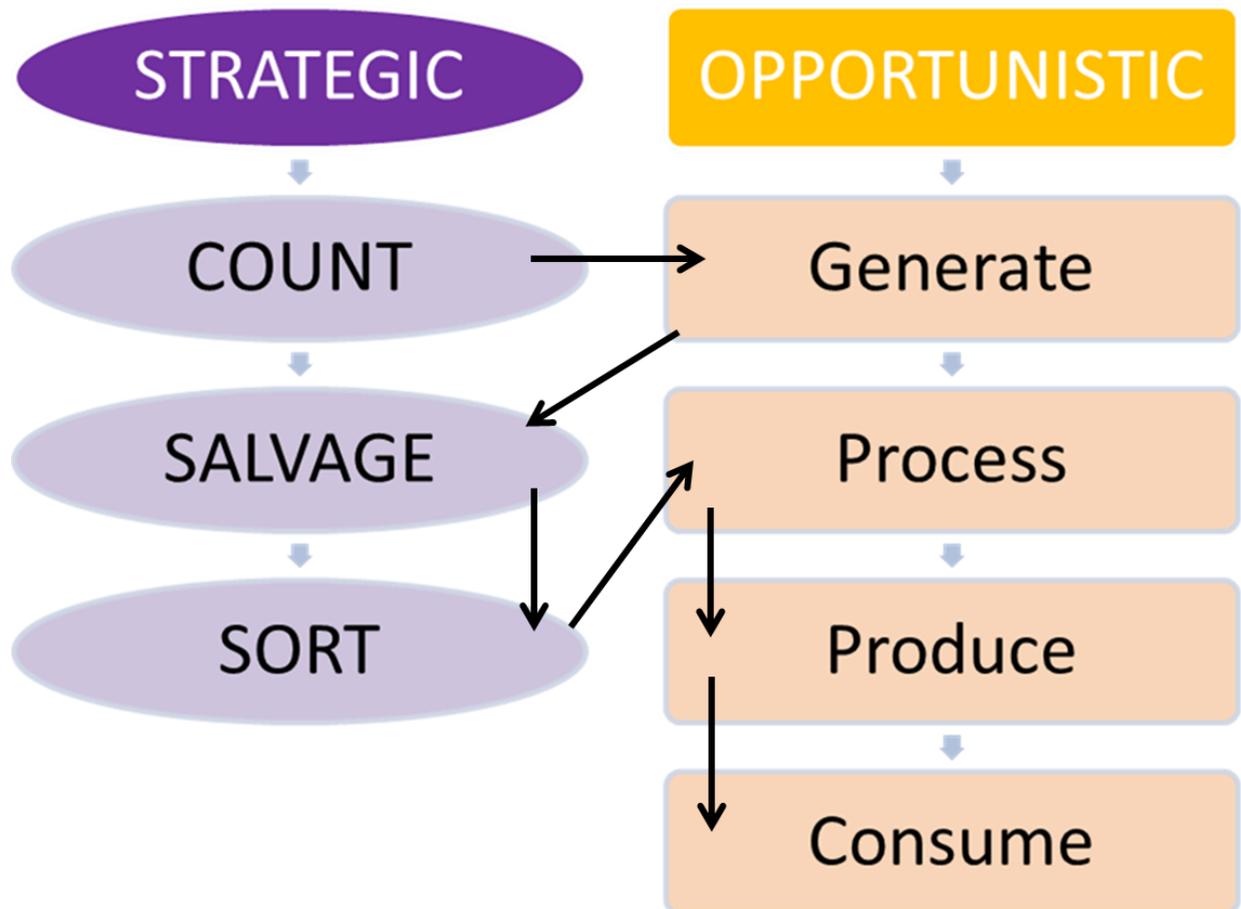


Figure 1 – The Urban Wood Flow model as represented in the Urban Wood Workbook. By identifying and implementing the STRATEGIC steps in the urban wood utilization process, there are substantial opportunities to increase value and build a linked economy.

WHAT WE DID – WORKSHOP AGENDA

Time	Topic	Learning Objective	Lead
Tuesday, December 11			
8:30-8:45am	Welcome & introductions	Share name & title, agenda overview	Sarah Hines (Urban Field Station Network Coordinator, USFS)
8:45 - 9:00	Setting the stage	How the Forest Service, Humanim, and partners are working together	Jeff Carroll (Director, Details Deconstruction), Morgan Grove (Baltimore Field Station Team Leader, USFS)
9:00-10:30	The current state of urban wood	Share current status, opportunities, and challenges of local urban wood efforts (pre-assessment)	ALL
10:30-10:45	Break		
10:45-12:15pm	COUNT, Generate	Urban FIA, City Street Tree Inventories - integrated data systems	Nancy Sonti (ecologist, USFS), Nathan Randolph (GIS Specialist, BDRP), Shaun Preston (Camp Small Yardmaster, BDRP)
12:15-1:00	Lunch	(at the Brewery Building)	
1:00-2:00	Developing the right policies	Understand and discuss the critical policy components that enable success (30 min for decon; 30 min fresh-cut)	Erik Dihle (Chief Arborist, BDRP) / Shaun Preston (Camp Small Yardmaster, BDRP)
2:00-4:30	SALVAGE	Field visit – Deconstruction site visit (2700 Kennedy Ave, 21218) & McKean Park (1500 McKean Ave, 21217)	Jeff Carroll (Director, Details Deconstruction)
4:30-5:00	Co-creating wood economies – informal discussion @ R House	Participants in the Urban Wood Academy share perspectives on additional information and materials needed to enable success	ALL
5:00	Happy hour + dinner	R House	ALL
Wednesday, December 12			
8:30-9:30am	Systems Thinking for urban wood economies	Key tool for urban wood self-assessments	Morgan Grove
9:30-10:00	Incubating a social enterprise	Understand what a social enterprise is and what makes a social enterprise succeed or fail?	Jeff Carroll
10:00-10:15	Break		
10:15-11:00	Developing a Public-Private Partnership	Components of building a strong partnership across sectors	Jeff Carroll, Erik Dihle

11:00-11:45	Lunch	(at the Brewery Building)	
11:45-12:00pm	Transportation to B+B		
12:00-2:00	SORT, Process	Field visit - Brick + Board Discussion about growing the market through retail – conversation with Room & Board	Rob Rinker (Operations Manager, Brick + Board), Jeff Carroll Gene Wilson (Director of Vendor Management, Room & Board), Megan Meyer, Strategic Business Development Manager, Room & Board)
2:00-2:15	Transportation to Camp Small		
2:15-3:15	SORT, Process (cont'd)	Field visit - Camp Small	Shaun Preston, Erik Dihle
3:15-3:30	Transportation to OpenWorks		
3:30-5:00	Produce, Consume Full-cost accounting & Impact Investing	Field visit – OpenWorks (makerspace) Conversation with Quantified Ventures about social impact investing	Will Holman (Executive Director, Open Works) Seth Brown (Senior Associate, Quantified Ventures)
Thursday, December 13			
8:30am-9:30	Repurposing materials and enabling community-led greening	GROW Centers	Mark Cameron (Section Chief, Watershed Planning and Partnerships, BDPW)/ Travis Lageman (GROW Center Coordinator, BDPW)
10:00-10:30	Communicating with stakeholders, policymakers, and the media	How to effectively convey the scope and impact of a systems solution	Henry Posko (President/CEO of Humanim, Inc.)
10:30-10:45	Break		
10:45-12:00	Conversation about key takeaways	What are the things we could each be doing differently, better, or more of to create, support, and connect urban wood economies?	Sarah Hines and Morgan Grove, ALL
12:00pm-12:30	Next Steps	Lunch	ALL
12:30	Adjourn and safe travels		

ATTENDEES

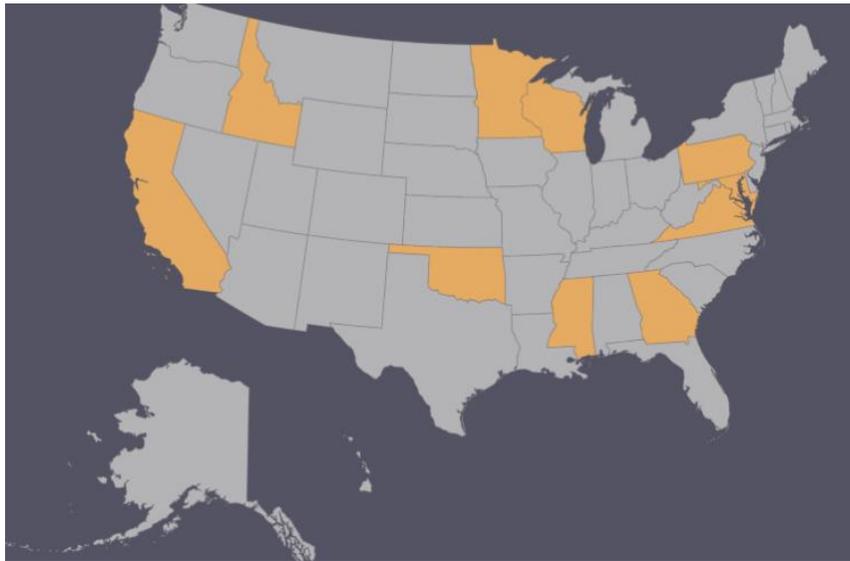


Figure 2. Eighteen participants from ten states and the District of Columbia joined workshop organizers and Baltimore City and Humanim staff and leadership for the inaugural Urban Wood Academy. Attendees represented a broad diversity of geographies, backgrounds, experience, and sectors; this diversity contributed significantly to the value of the Academy and mutual learning throughout.

	Name	Organization	State	Role
1	Charlie Becker	Virginia Department of Forestry	VA	Utilization & Marketing Manager
2	Joe Lehen	Virginia Department of Forestry	VA	Forest Utilization & Marketing Specialist
3	Lara Johnson	Virginia Department of Forestry	VA	Urban & Community Forestry Partnership Coordinator
4	Riley Coy	Oklahoma Forestry Services	OK	Service Forester
5	Druid Preston	Georgia Forestry Commission	GA	Carbon Sequestration, Biomass Supply and User Information, Certified Wood Products
6	Todd Matthews	Mississippi Forestry Commission	MS	Urban Forestry & Forest Health Coordinator, UCF – MS

7	Dwayne Sperber	Wudeward Urban Forest Products	WI	Founding partner of WI Urban Wood and a member of the WI Urban Forestry Council
8	Kathryn (Katie) Fernholz	Dovetail Partners	MN	Executive Director
9	Steve Cashman	208 Urban Timber	ID	President of 208 Urban Timber in Boise, ID
10	Jennifer Szeliga	Sacramento Tree Foundation	CA	Director of Urban Forest Renewal
11	Bethany Hannah	Sacramento Tree Foundation	CA	Program Manager, Urban Wood Rescue
12	Ellen Roane	Pennsylvania DCNR	PA	TreeVitalize Program & Urban Wood Use Coordinator
13	Mark Wilkens	Philly Parks and Recreation	PA	Organic Recycling Center
14	Alex Gilliam	Public Workshop	PA	Founder and social entrepreneur
15	Daniel Lawson	Fairmount Parks Conservancy	PA	Sustainability & Quality Control Manager
16	Carlos Alvarez	PowerCorps (workforce development & milling operations)	PA	Project Manager
17	Duff McCulley	Urban Forestry Division, DC Dept of Transportation	DC	Supervisory Forester
18	Shuan McKim	Urban Forestry Division, DC Dept of Transportation	DC	Forester (Urban)

*Special thanks to Karin Theophile of USDA Forest Service International Programs for taking notes during the Academy.

PRE-WORK

APPROACH AND RATIONALE

We designed the Urban Wood Academy to be a multi-day, interactive, and experiential workshop to share best practices and lessons learned. The agenda involved time both indoors and in the field. We organized logistics, meals, and field stops to encourage interactions among participants in addition to interactions with the organizers and Baltimore practitioners.

In order to promote preparation for the Academy and sharing among participants, we asked participants to complete a survey in advance. During the morning of the first day, we asked a representative from each location—state or city—to assess and share a summary of the current status of urban wood utilization for their location.

We asked participants to complete the survey to the best of their knowledge or ability and return to us in advance to allow us to share responses with all the participants when the Academy began. Not all participants completed the survey, but it did serve to stimulate advance thinking and robust conversation during the first morning. Survey questions and collected responses can be found in Appendix 1.

SUMMARY OF PRE-WORK

- Few participants engaged in written pre-work. However, those that did represented the Mid-Atlantic, South, and West, which was helpful.
- Strategic items of COUNT, SALVAGE, and SORT were common among respondents, which is positive for program initiation and implementation. COUNT and SALVAGE were in all sites. SORT was largely limited to segregating materials for future output as firewood, mulch, or compost. No site reported a log yard sorted by species and or quality.
- Wood waste Generation focused on fresh-cut. No respondents reported use of deconstructed wood and only one reported significant building vacancy rates.
- Wood waste Processing consisted primarily of milling. Kilns are not common and air drying is common.
- Production was primarily reported as a public sector activity and focused on chips, compost, and firewood. Despite this, logs were reported as the most valued wood waste material.
- Consumption of urban wood products was reported by all sites and represented a wide variety of products from the public and private sectors.
- Barriers reported included lack of adequate data on wood waste volumes, inadequate or incomplete networks (generators to consumers), adequate business intelligence planning, and market information (processors to consumers).
- Existence of urban wood waste plans is variable.

- Partnerships exist and public-private-NGO networks are common.
- Landfill fees are common and are used to incentivize limits. Prohibitive limits were not reported (pay-to-play).
- Ex-offender programs are common, but their connections to urban wood use are not.



Figure 3 - Workshop participants at Humanim's offices

ACADEMY TAKEAWAYS

Throughout the Academy, a number of big ideas, questions, and discussion emerged:

BIG IDEAS

- Urban Wood represents a trifecta of social & environmental impact, social responsibility & financial sustainability
- Avoided costs can count as revenue
- There is more urban wood in landfills than from National Forests
- The policy environment is complex: lots of contradictions & overlapping jurisdictions
- Partners can help find/create work arounds
 - community-led efforts
 - environmental NGOs
- Systems thinking as a powerful tool to understand and build urban wood economies
- Impacts of employment – cascading effects
- Vocabulary is crucial: from demolition to deconstruction, & how using sensitive vocabulary can change the conversation
- To identify supporters, tap into their self-interest: find the communities that care about watersheds and/or about stormwater and they'll care about urban wood
- Identifying great Board members and creating a diverse, thoughtful, and creative Board of Directors can enable a social enterprise



Figure 4. A series of photos from the inaugural Urban Wood Academy.

QUESTIONS AND DISCUSSION

- Differences between wood from fresh cut vs. reclaimed wood
 - Sustainability
 - Certification for urban fresh cut, FSC vs. PEFC
 - Opportunities for carbon credit
- The concept of urban forests must include the 'trees in the buildings'
- Markets are for urban wood
 - Who's buying?



- How to supply them (tough w/fresh cut & w/reclaimed wood, there must be an economy of scale)
- State & city agencies
 - have restrictions that make innovation tough: liability around people getting materials out of empty houses, no way to sell wood to willing buyers
 - have found success thru partnering
- Many comments & rich discussion about the importance of storytelling vis a vis getting buy-in from agency partners and community
- Attitude towards partners & the “Stone Soup” approach
- Using Systems Thinking to ID partners who might be willing to pay or to contribute
- Roles of state forestry orgs. & examples of how laws can be changed to improve urban wood utilization
- Urban wood falls between cracks of DPW and Parks & Rec
- How to work with cultural differences that impede work – some city dwellers don’t want trees because of misperceptions about trees attracting rats, increasing crime, etc...
- Media- being savvy means using it when its productive/useful and knowing when it’s better to keep a low profile
- Equity and inclusion- it is worth getting it right



POST-CONFERENCE SURVEY

A post-conference survey link was provided to all attendees. The survey was created in ESRI Survey123.

Overall, feedback was very positive, with mean scores of 4.09 or higher on a scale of 1 to 5 for all questions.

“The workshop helped me understand concepts related to incubating a social enterprise” and “The workshop helped me understand the role of public-private partnerships in regional wood economies” were the most highly ranked responses at 4.8 and 4.72, respectively.

“The workshop helped me understand methods and tools for evaluating social, economic, and environmental impacts” was the lowest ranked response at 4.09.

FEEDBACK ON TARGET OUTCOMES

We advised attendees of our intended outcomes for the workshop. We asked how they would rate how the workshop fulfilled that intent on a Likert scale of Strongly Disagree to Strongly Agree, which we converted to a scale of 1 to 5 for analysis.

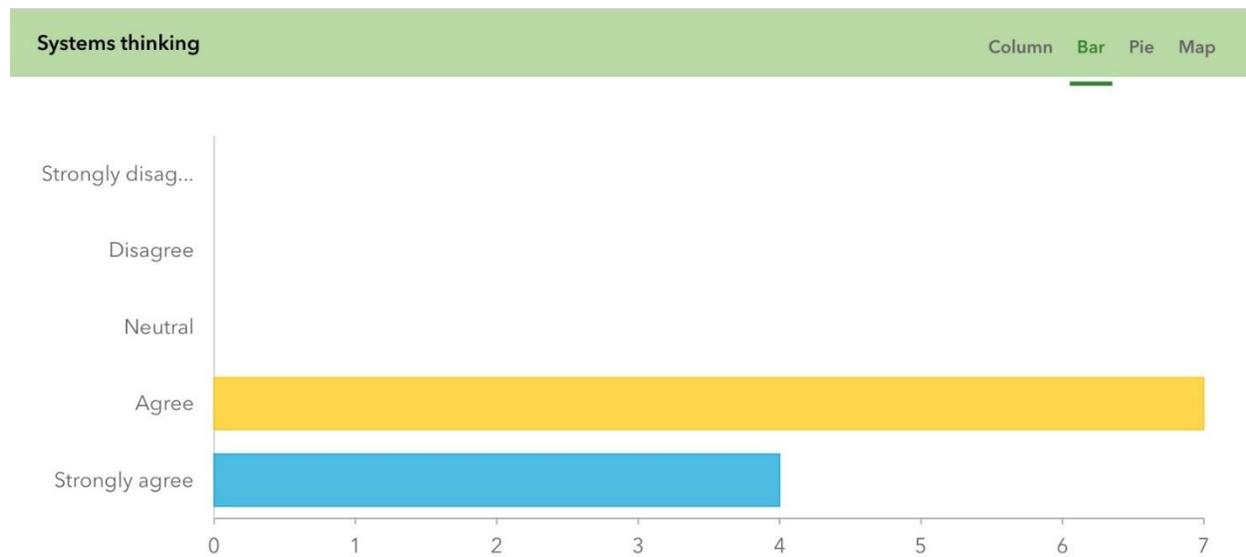


Figure 5 - Systems thinking

Regional urban wood economy: waste diversion Column **Bar** Pie Map

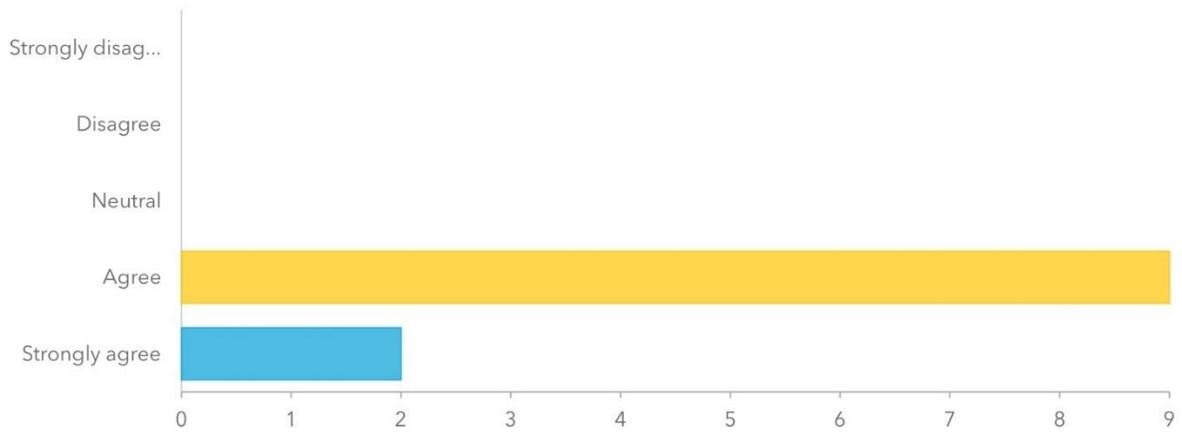


Figure 6 - Waste diversion

Regional urban wood economy: social enterprise Column **Bar** Pie Map

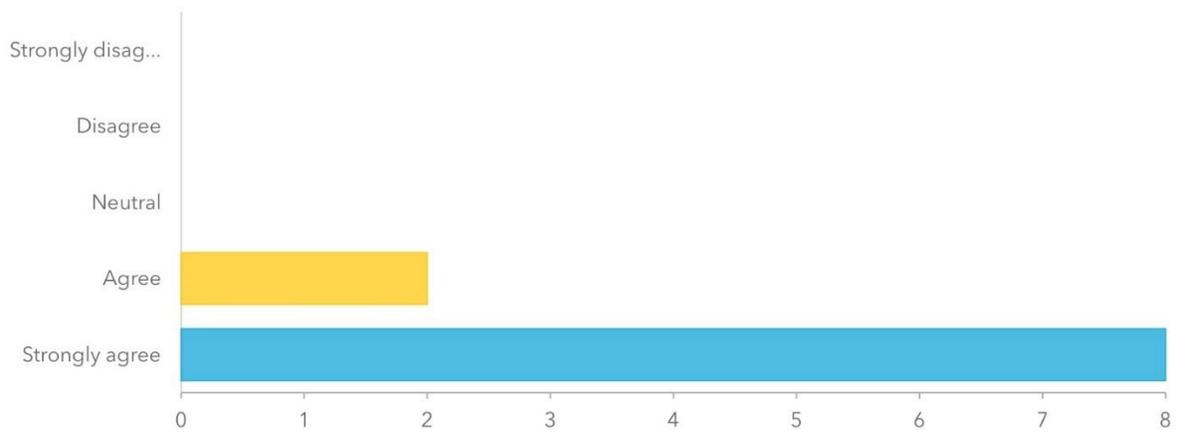


Figure 7 - Social enterprise

Regional urban wood economy: public-private partnerships

Column Bar Pie Map

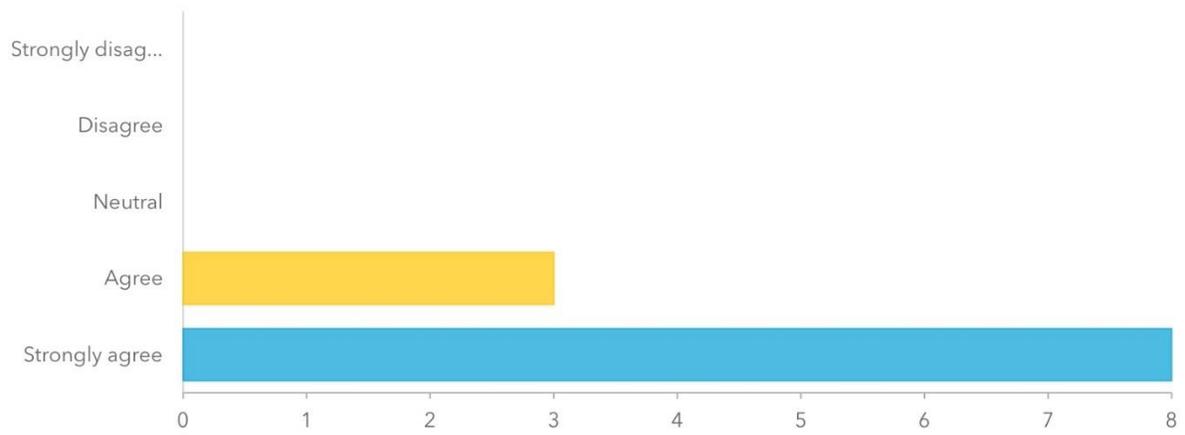


Figure 8 - Public-private partnership

Regional urban wood economy: full-cost accounting

Column Bar Pie Map

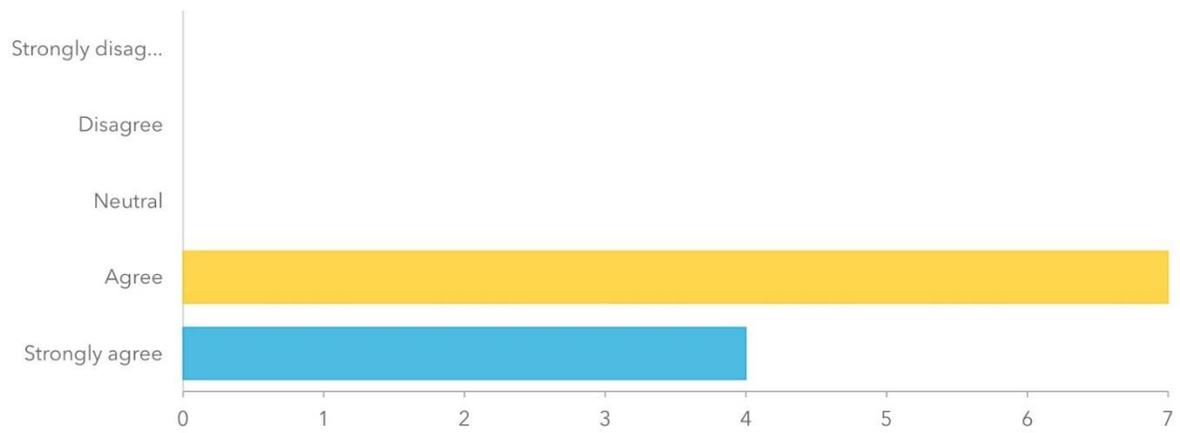


Figure 9 - Full-cost accounting

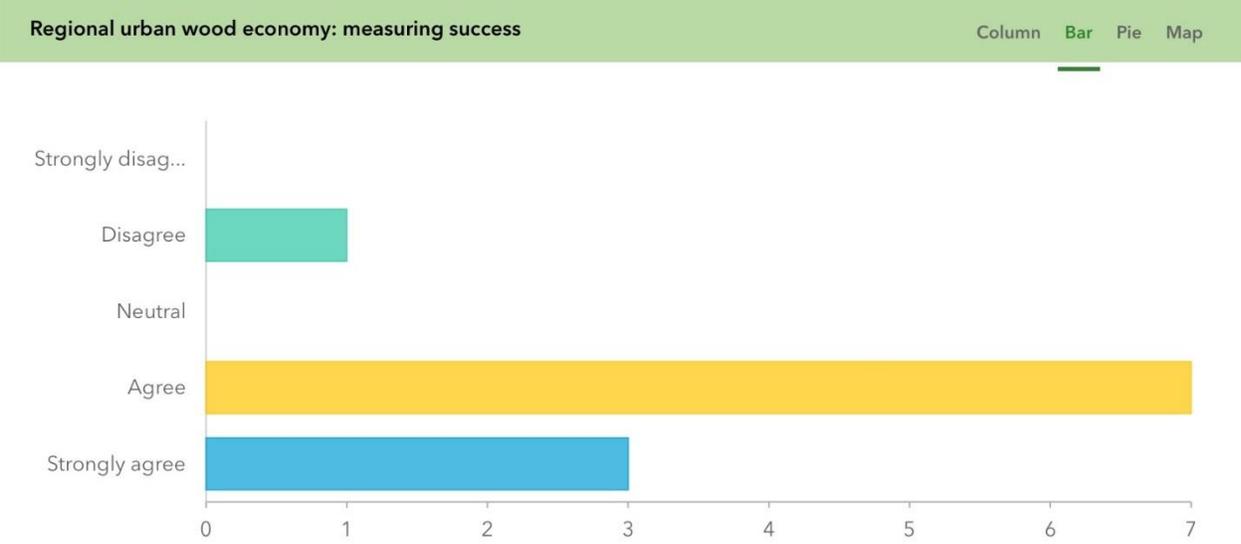


Figure 10 - Measuring success

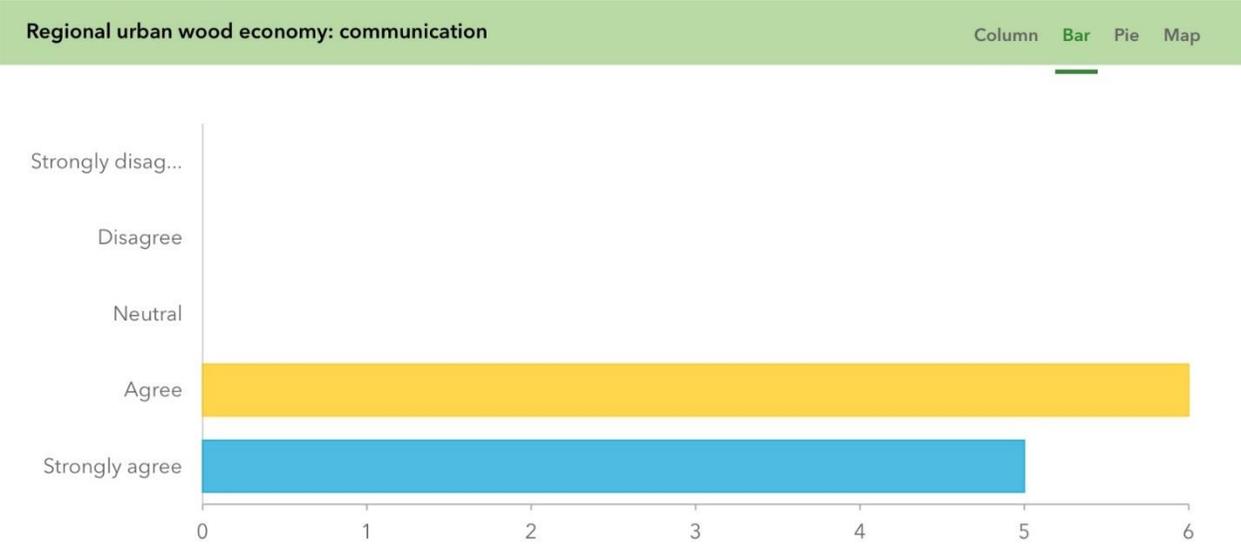


Figure 11 – Communication



Figure 12 - McKean site where community greening followed building deconstruction

KNOWLEDGE EXPECTATIONS AND GAPS

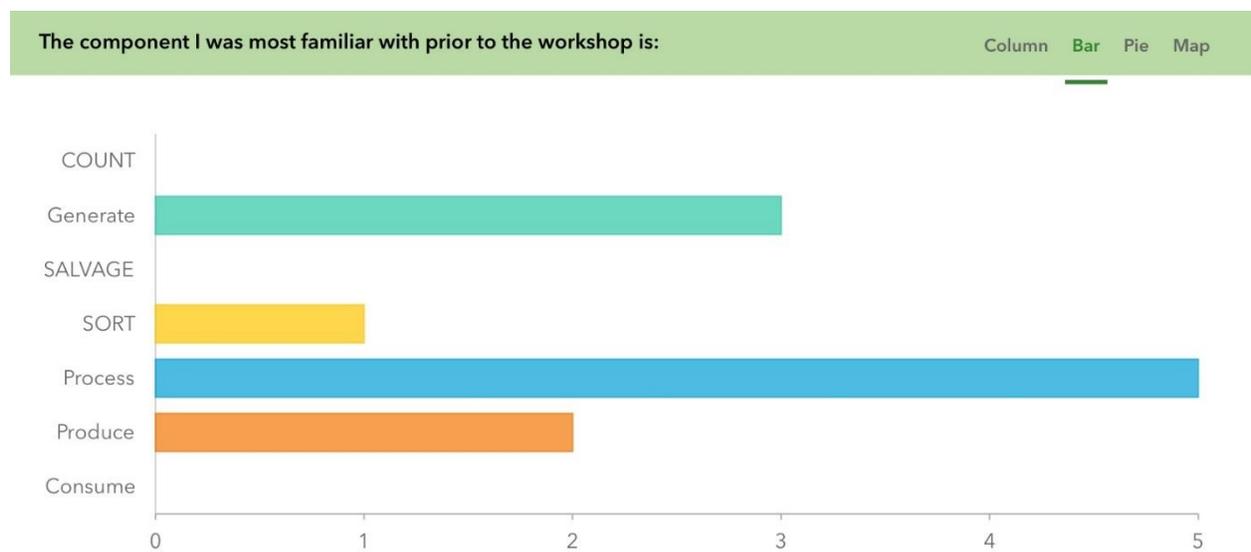


Figure 13 - Pre-knowledge

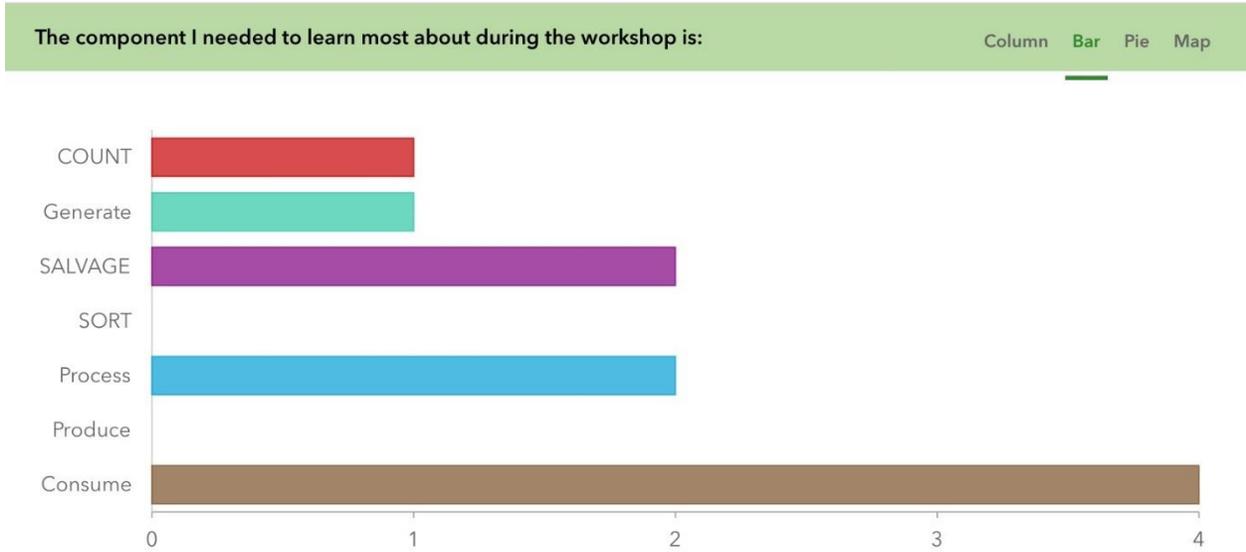


Figure 14 - Knowledge need

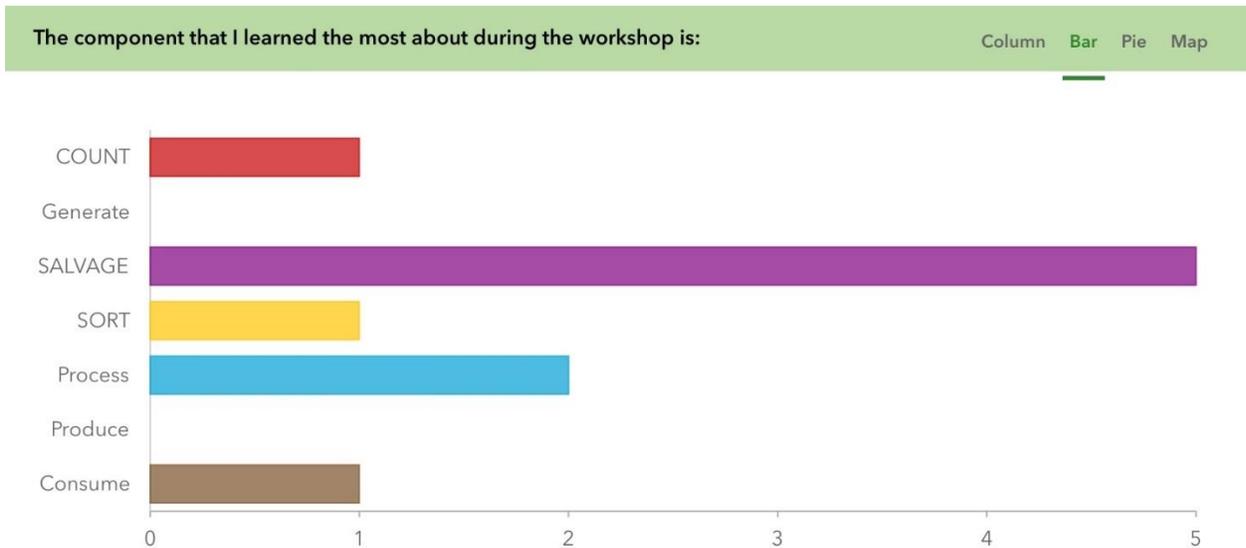


Figure 15 - Knowledge gain

Knowledge of urban wood waste Generation and Processing was most common among attendees prior to the workshop, with no reported knowledge of the strategic items COUNT and SALVAGE.

Most attendees came to the workshop looking for more knowledge about markets (Consume) as well as the strategic items COUNT and SALVAGE.

Attendees learned the most about SALVAGE at the workshop, with some but not as much about Consume and COUNT.

PARTICIPANT COMMENTS

WHAT WAS THE BEST THING ABOUT THIS WORKSHOP FOR YOU?

Outward, inclusive, organized discussions. Only because this is familiar to me, the benefits to me were in discussion during and after organized presentations.

The various drivers that affect projects in different areas and need to incorporate more social dimensions to help make projects successful.

This is almost impossible for me to pick, I needed everything. But if I had to pick one thing, it would be the encouragement I got from everyone.

An opportunity to share experience and learn new ideas. Make good connections.

Open discussions and networking with urban wood enthusiasts from across the country.

Great location, right sized group, balance of classroom and field tours (and mixed together on each day), mix of sites visited was diverse and interesting, high level of expertise among participants, overall positive and constructive tone and dialogue.

The exposure to every step and setting in the whole process was executed incredibly well. We witnessed the people and instruments that make the program at every level outside of seeing an upcycled chair sitting in someone's home.

The workshop was so well conceptualized and executed - attending the Academy was the best use of our time this whole year. I think the balance of presenters/expertise, the scope of the topics, and the mixture of participant perspectives was the best.

Baltimore City explaining how they used urban lumber within city contracts.

Actually seeing a stream from start to end.

It was a very valuable learning experience all around! Thank you for the opportunity to learn from so many knowledgeable experts. The field visits were great too!

WHAT COULD WE IMPROVE UPON NEXT TIME?

As discussed with Sarah, inclusion of a design professional - or industries that control materials options. Room and Board, I realize, filled that spot here, so I'm referring to the built environment.

It is hard to do any more in the same time frame and some areas we could have used more time. Pre-academy homework or materials on specific topics being covered may help with better understanding. The pre-academy survey was very Baltimore project centric.

I can't think of a single thing that would have improved it. I would love to see how camp smalls and your dimensional/ slab operation progresses. But since this was not in operation yet, it could not have been part of the course (but in the future).

It was fantastic. You nailed it.

The only thing to do differently was to place the "economics talk" in a better time slot, not at the end of the day.

Stronger look at urban wood from trees (fresh cut) and more interaction with communities being served by the projects, employees of the social enterprises, additional partners.

I believe our group consisted primarily of technical thinkers, many of whom benefited from the lesson in partnership building, strategy, and social entrepreneurship. I think we would've exchanged 50% of that time for more time spent on nuts and bolts.

I would have stayed an extra day to do a deep dive into logistics, operations, and accounting for Details and (once it's off the ground) the fresh milled components. I have a ton of questions related to business/operations/practices that work for them.

location and access.

More time on Systems Thinking - consider completing diagrams WITH class for better comprehension; Full Cost Accounting- slow it down, explain the slides. More focus on fresh cut.

ANY ADDITIONAL COMMENTS

Very well doneand I support small groups. Number of people felt right.

Very good overall and exceeded expectations. Very minor issue, but having meeting and lodging within walking distance or vehicle to shuttle everyone.

At the end of the course on Thursday, you asked for feedback and I was the only person who did not speak up. I have been struggling to organize my thoughts and still not sure. Not about the course or the presenters, they were all 100% amazing.

I only wish I could have been present for more of it. I missed a lot of the opportunities for socializing because of other duties.

Outstanding job USFS! You more than exceeded my expectations for this gathering! I would encourage you to take this model elsewhere and spread the great message of urban wood - both fresh cut and reclaimed. HUGE thanks to Jeff Carroll and Humanim!

I think you could charge for this event. A minimum charge could be for the actual direct costs (food, mtg space, transportation) plus some overhead. Significantly higher fees might limit participation from those that incur significant travel expenses.

The presentation was inspiring. The facilitation and hosting was on point. There's great success in capturing a diverse group (we represented municipal, state, private, non-profit, green wood vs. deconstruction) and I think there's great value in that.

Thank you so much for inviting us to attend. It was amazing and Jennifer and I are looking forward to implementing some great ideas and approaches we learned during the week. Thank you!!

Could omit GROW Centers talk.

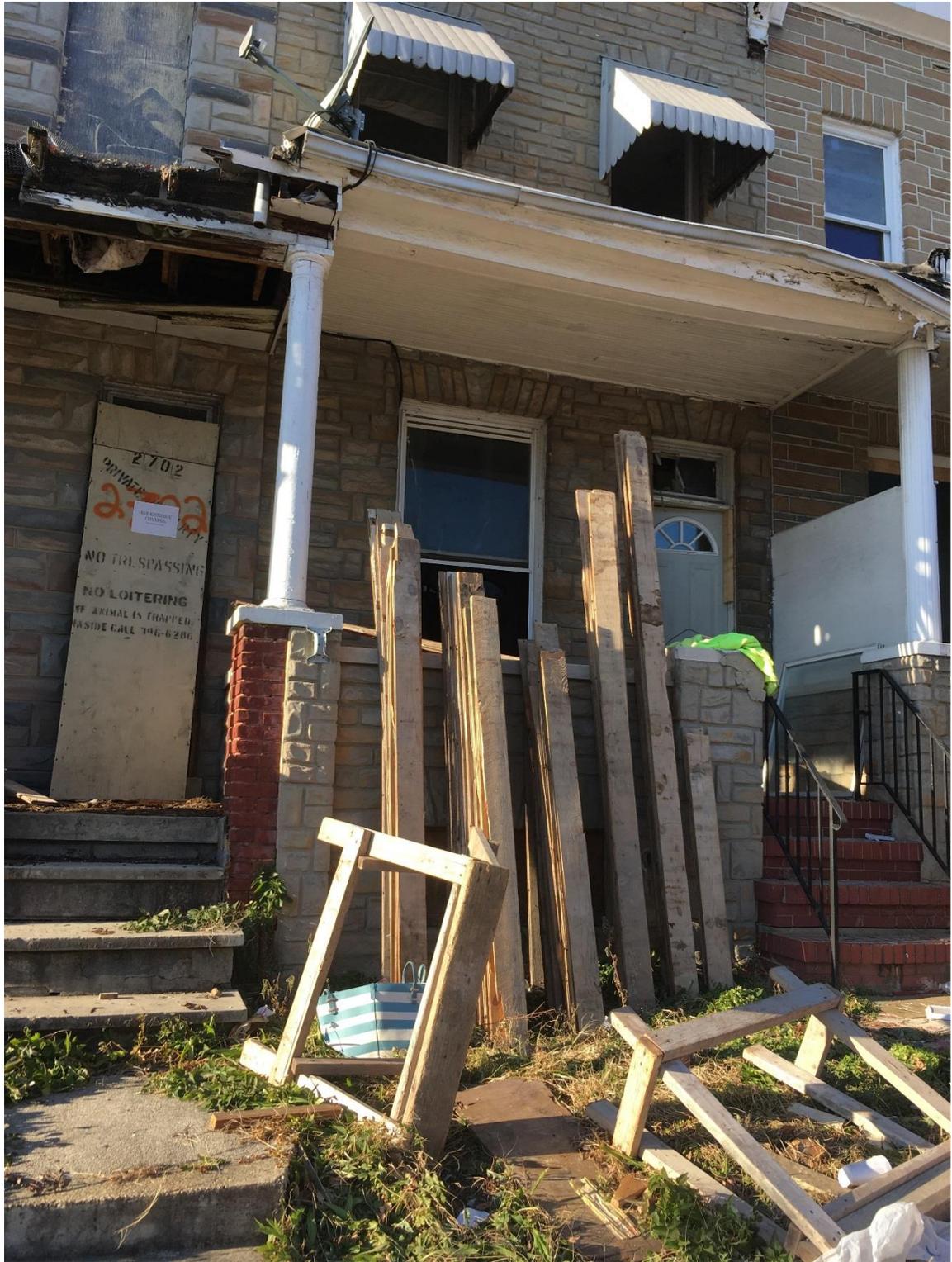


Figure 16 - Row house deconstruction in progress

FINDINGS AND RECOMMENDATIONS

GENERAL

- The inaugural Urban Wood Academy was a success and provided substantial value for participants.
- Future Academies should feature the City of Baltimore as a co-host, along with the USDA Forest Service and Humanim; this may also ensure that the City is able to participate fully throughout.
- There is significant follow-up interest in future Academies, including international applications and possibilities.

PARTICIPATION

- Partner participation and co-leadership by the City of Baltimore was essential to the Academy's success and value-add. Future academies should compensate adequately for their engagement.
- Attendees represented a broad diversity of geographies, backgrounds, experience, and sectors; this diversity contributed significantly to the value of the Academy and mutual learning throughout
- Group size (eighteen participants) worked very well. Optimal group size for future academies would be between 14-18.
- Ten states and the District of Columbia (D.C.) were represented, as were all geographies – northeast, south, Midwest, and west. Optimal geographic diversity for future Academies would be at least 5 states, and at least 3+ geographies.
- All sectors of the urban wood economy (government, NGO/social enterprise, private) were represented. Sector diversity contributes to value-add.
- The above-described diversity led to greater discovery and trust – participants were not direct competitors, so this opened up space for abundant collaboration and mutual learning.

LOGISTICS

- The venue (Humanim's headquarters) was very inspiring. Having a view of the heterogeneous Baltimore landscape provided incredible context. Windows and natural sunlight, combined with trips to the field, infused the already engaged group with extra energy and inspiration. The room layout featured an oval shape so that everyone had an equal seat and spontaneous conversation and dialogue was forthcoming.

- We rented a 24 person mini-bus for the field portions. This worked exceptionally well to encourage dialogue and conversation among all and minimize logistical distractions.

CONTENT

- The event may benefit from a more general and less locally-specific focus. That is, less on deconstruction and the particulars regarding Baltimore and more on fresh cut and generally applicable concepts.
- We should review the pre-work and see if we can streamline it in an effort to gain greater participation in it.
- Unique expertise among the workshop team was evident to attendees as two areas of specific expertise, incubating a social enterprise and public-private partnerships, were the highest rated.
- We should seek to improve alignment between what participants need to learn more about and what they do learn more about. As everyone is different and we cannot modify the curriculum for each attendee, this may be a matter of better communicating expectations on what will be covered. Though this was done quite thoroughly with the advance provision of the agenda and pre-work, we should think about ways we may be able to communicate this more effectively.
- Consider expanding engagement with Dovetail Partners in future Academies. Cross-leverage their network and expertise.

APPENDIX 1. PRE-WORKSHOP SURVEY

QUESTIONS AND RESPONSES

WHICH CITY OR CITIES ARE YOU INTERESTED TO WORK IN?

As a state employee with the Urban and Community Forestry Program, I work across Virginia with communities of all sizes to encourage utilization of urban wood and support them based on their needs. Having strong connections with municipal staff has enabled our success with the urban wood program in Virginia.

The Virginia Urban Wood Project works across the state in communities ranging in size from a few thousand people to those with hundreds of thousands of citizens. We have noticed that the larger the community, the more complex it is to affect change. This may be due to multiple departments having the responsibility for municipally-owned trees and also greater levels of bureaucracy.

Philadelphia.

Idaho's Treasure Valley (Boise metropolitan area, including: Meridian, Nampa, Eagle, Star, Kuna, Caldwell, Middleton)

WHAT IS THE CURRENT STATUS OF ENTITIES (GOVERNMENT, PRIVATE BUSINESS, OR NGOS) WHO: **COUNT:** DOES YOUR CITY/CITIES HAVE ONE OR MORE INVENTORIES, AND WHAT KIND(S) – STREET TREE, COMPLETE TREE, URBAN TREE CANOPY, ETC? AND, IF SO, WHAT IS THE CURRENT STATUS OF WOOD MATERIAL SUCH AS STREET TREES AND/OR PARK TREES, OR VACANT HOMES?

Some of the communities that we work with have a UTC analysis and/or tree inventories but others do not. As a note, we have had more success with communities that have more activated internal staff and are supported with an urban forest management plan, inventory or a UTC analysis. Wood material varies widely: mainly based on the size of the communities and the number of public trees. Smaller communities may only remove a couple of trees a year while larger communities are removing more frequently. There really is not a good program for upcycling historic vacant home wood in Virginia. We have mainly focused on urban trees.

This varies greatly among the communities. Some communities participating in our Urban Wood Program have tree canopy assessments and tree inventories, others do not. The level of the wood material generated from the communities varies greatly. Smaller communities only remove a few trees per year, the larger communities are removing trees on a weekly basis. Some of the communities have a good plan for the complete use of the wood they generate, others have yet to achieve that level of

upcycling. Vacant homes are mostly demolished/repurposed by the private sector. The Virginia program has yet to delve into the repurposing of finished urban wood from urban structures.

All of the above. Endless inventory of park trees.

- Idaho's Treasure Valley has a 2013 urban tree canopy assessment that helped generate data and develop public, private and non-profit partnerships (now the Treasure Valley Canopy Network) that assist with various collaborative urban forestry efforts, including support for a regional wood collaborative and 208 Urban Timber. Learn more at www.tvcanopy.net and <http://www.tvcanopy.net/urban-wood/>
- Many cities have current, but incomplete inventories of their public trees:
 - Boise: incomplete public tree only & recently completed management plan: <http://bit.ly/2015BoiseCommtyForestPlan>.
 - Nampa, Meridian, Caldwell and Eagle have incomplete public tree inventories, available on Idaho's Tree Plotter application: <https://pg-cloud.com/Idaho/>
- Since the current inventories are incomplete, they aren't very valuable to simply query to determine wood volume available for the urban wood collaborative. Based on local knowledge and experience, several cities have urban wood in the form of large, aging trees in the street right-of-way, in public parks and on private land:
 - Boise: the largest, most diverse and most aged trees along the Boise river corridor, in the older areas of town (developed in the early 1900's) and in public parks.
 - Nampa & Caldwell have areas of larger and aged trees suitable for urban wood utilization, along streets, in public parks and private residential areas
 - Eagle, Star, Kuna, Middleton and Meridian consist of mostly newer developments with young trees. There are limited areas of large and aging trees available for potential urban wood utilization.

WHAT IS THE CURRENT STATUS OF ENTITIES (GOVERNMENT, PRIVATE BUSINESS, OR NGOS) WHO: **GENERATE** WOOD: TREE REMOVAL, LAND CLEARING, DEMOLITION, OR DECONSTRUCTION

We have not really focused on the demolition and deconstruction side of the industry because most of our focus has been on urban tree removals and small woodlot management.

This was mostly answered in the above question. Land clearing is done by private contractors, some of which we have engaged in initial conversations about upcycling the better/larger logs that are removed from development sites instead of tub grinding all of the material.

Yes to tree removal and land clearing.

- The primary source of urban wood is through tree removals, either by city forestry departments or private tree care companies.
- Boise is located in a semi-arid high-desert environment, so land clearing is not a source of large urban wood.
- We have not explored re-claimed wood as a source here, such as demolition of old buildings, barns, etc.

WHAT IS THE CURRENT STATUS OF ENTITIES (GOVERNMENT, PRIVATE BUSINESS, OR NGOS)
WHO: **PROCESS** WOOD: SAWYERS, KILN OR AIR DRYING, MILLS, SPLITTING, CHIPPING

We have an online resource through Trees Virginia (www.vurbanwoodhelp.org) that businesses can use to promote their products and services. There is also an urban wood page on the Trees Virginia website to promote urban wood use in Virginia (<http://www.treesvirginia.org/outreach/virginia-urban-wood-group>)

We have developed an on-line resource that provides access to sawyers, kilns, portable and stationary mills that will do custom sawing; www.vurbanwoodhelp.org

We rent a mill from a sawyer.

208 Urban Timber saws and air dries . They do not have access to a kiln.

WHAT IS THE CURRENT STATUS OF ENTITIES (GOVERNMENT, PRIVATE BUSINESS, OR NGOS)
WHO: **SALVAGE** WOOD THAT WOULD OTHERWISE BE DESIGNATED AS WASTE

We are really only promoting urban tree reuse and small woodlot management. Not home wood salvage. However, our role has primarily been outreach and promoting the stories of communities with successful programs.

This is addressed in our upcycling/recycling outreach efforts with the communities – giving urban wood a better future besides the tub grinder at the landfill.

Yes.

All the wood used by 208 Urban Timber, salvaged from tree removals, would otherwise be chipped and sold as mulch or sent to the landfill.

WHAT IS THE CURRENT STATUS OF ENTITIES (GOVERNMENT, PRIVATE BUSINESS, OR NGOS)
WHO: **SORT** WOOD BY AGGREGATING SALVAGED MATERIALS BY OPPORTUNITY AND KIND

Again, the communities themselves organize this. We are an outlet to promote and encourage the use of urban wood but sorting varies widely across our state based on the internal structure of the community.

Communities are doing this on their own – leaves collected and used for creating compost for future urban plantings, branches being chipped for mulch and used on municipal trails, larger material used for firewood, larger tree trunks used as a processed wood product.

Yes.

I don't think anyone in the Treasure Valley is currently doing this.

WHAT IS THE CURRENT STATUS OF ENTITIES (GOVERNMENT, PRIVATE BUSINESS, OR NGOS)
WHO: **PRODUCE** CHIPS, PALLETS, BIOENERGY, FURNITURE, FIREWOOD, OR COMPOST

Again, the communities themselves organize this. Production of these products varies widely across our state based on the internal structure of the community.

Mostly answered in the previous question. Pallets, and furniture being generated from urban wood by the private sector.

Yes to chips, firewood and compost. Fairmount Park Organic Recycling Center.

- Not aware of any pallet or bioenergy operations here
- There are several local wood workers and a few tree care companies who produce firewood and chips / compost from tree removals and are working together to improve wood utilization opportunities:
 - City of Boise Community Forestry produces chips for mulch:
<https://parks.cityofboise.org/community-forestry/>
 - Private tree care companies produce chips, but mostly goes to landfill

There may be some opportunity for chips / mulch from City of Boise's residential composting program (relatively new): <https://curbit.cityofboise.org/composting/program-overview/>

WHAT IS THE CURRENT STATUS OF ENTITIES (GOVERNMENT, PRIVATE BUSINESS, OR NGOS)
WHO: **CONSUME** LOCAL URBAN WOOD MATERIALS

We are doing a research study with JMU in 2 Virginia communities to get an idea of both interest and knowledge of this question. Both communities have an active urban wood program and information should be available early next year.

There is a huge interest by consumers for products made from urban wood – especially wood with a back story. Just like local food, local beer, local wine, people yearn for local wood products and will pay good prices to own it. There is also a strong interest in the innovative wood pieces being created by crafters: live-edge, slab tables, etc.

Yes. <https://squareup.com/store/myphillypark/item/wood-bench-from-the-oval-1>

- 208 Urban Timber works with local crafts people to make and market items made with the locally sourced trees. They also run/ participate in a few Facebook groups to reach a wider audience
- We are aware of other groups who are not currently involved in our local urban wood collaborative who create art from local wood products:
 - TreeWorks <https://www.treeworksidaho.com/products>
 - Idaho Artistry in Wood Show: <https://www.idahoartistryinwood.net>
 - Heart of Timber: <https://www.heartoftimber.com>

WHICH OF THESE **TYPES OF INFORMATION** DO YOU CONSIDER TO BE THE MOST IMPORTANT TO HAVE? **HOW HAVE YOU ASSESSED** AND COMPILED THE ABOVE INFORMATION? OR, WHAT ARE THE **BIGGEST BARRIERS** TO GETTING THIS INFORMATION?

I guess my biggest questions are: How much urban wood is being created statewide? How much is being utilized for a secondary use versus being thrown away? What can we do to support arborists or private companies in upcycling urban wood in Virginia?

One of the missing components is the amount of urban wood waste being generated on a statewide basis. We hope to at least do a sampling for that under our present LASR grant program and then interpolate that data to develop statewide info. This woody debris output data is especially important when attempting to attract a larger, wood-using industry that may wish to locate in a given area.

How to develop operating/staffing plan and how best to monetize the opportunities.

Sharing of information and partnerships with a few key people are important, that has led to most of the success with our collaborative with 208 Urban Timber

Our largest barrier is simply knowledge at this point, on two fronts. The first is that most people in this area do not seem to care about tree's overall or what happens to them. The second is our knowledge of operations. The participant's so far have limited knowledge in forestry as a whole and no knowledge of specific functions such as kiln operations.

WHICH **WOOD MATERIALS** ARE CURRENTLY CONSIDERED **WASTE** AND WHICH ARE CONSIDERED **VALUABLE**--JUST THE TREE, TREE AND OTHER MATERIALS SUCH AS PALLETS, BUILDING MATERIALS?

I think this question really depends on the space availability for storage for both private companies and municipalities. Those that have space often can hold over the whole trunk and its parts either for slabs or more commonly just to stump grid for mulch.

Most tree trunks (logs) are considered somewhat valuable/usable by the some of the communities. Realize that “value” is a very elusive term in that it varies according to tree species, log quality, market demand, etc. The disposal/use of twigs, branches and low quality trunks is always more of a challenge.

This depends on who you ask. As a whole, all material are considered waste by most people. We are currently only trying to capture urban trees for salvage.

DOES YOUR STATE, URBAN AREA, OR CITY HAVE AN URBAN WOOD UTILIZATION PLAN? IS IT BEING USED OR IMPLEMENTED SUCCESSFULLY – WHY OR WHY NOT?

We do not have a statewide urban wood utilization plan but a couple of our communities have one.

Two of the communities that we work with – Woodstock and Harrisonburg – have pretty solid urban wood utilization plans. Both communities have an urban wood utilization as a section in their comprehensive/strategic plans. Both communities are doing a good job of implementing their plans. Other communities have urban wood programs that just emerged “organically” without the concept being captured in an official document.

Still being developed. Hope the academy can help to inform it.

The Treasure Valley Canopy Network and 208 Urban Timber worked together to generate a local framework, attached “Urban Wood Utilization in Idaho”, which is the closest to assessing any needs or documenting a plan locally.

WHO ARE THE LOCAL PARTNERS, IF ANY, WHO MIGHT BE INTERESTED TO WORK ON URBAN WOOD UTILIZATION?

Our partners in the Virginia Urban Wood Group are varied. Some include representatives from utilities, municipalities, local municipal arborists, Virginia Cooperative Extension, Trees Virginia and the private sector.

Our partners are reflected in the diversity of organizations which occupy the seats on the Virginia Urban Wood Group. They include: municipalities, utility companies, private sector businesses, local governments, state cooperative extension agency, Trees Virginia (VA Urban Forest Council), tree board member, sustainability coordinator and the VA Dept. of Forestry.

Power Corps PHL, Prisons, Public Workshop, Center for Architecture, Fairmount Park Conservancy.

Treasure Valley Canopy Network and 208 Urban Timber have built a small network of *.Gov, tree service, sawyers, crafts people and retailers that are interested in trying to save local trees from the landfill.

HOW MUCH **TREE/WOOD MATERIAL IS DISPOSED OF IN LANDFILLS?** IN OTHER WORDS – IS THERE A RECENT LANDFILL SURVEY?

We really do not have an idea of this in our state.

Unknown – no recent surveys of landfills. However, we will be able to capture snapshots wood disposal in landfills with our upcoming community wood usage surveys via a USFS-LASR grant.

All goes to the Fairmount Park Recycling Center. Endless material.

Not that we are aware of, but we could reach out to City of Boise to learn if they track this through their Ada County Landfill program: <https://curbit.cityofboise.org/composting/program-overview/>

OTHER ITEMS THAT CAN BE VALUABLE SYNERGIES, AND BONUS POINTS FOR THOSE WHO KNOW THE ANSWERS:

ARE THERE CONCERNS ABOUT **LIMITS AND COSTS FOR LANDFILLS** IN YOUR AREA? (PUBLIC WORKS MAY KNOW THE ANSWER)

Sure, tipping prices vary across the state and this is an expense for the municipalities or private companies. The difference is that private companies are putting the disposal fees on the customer instead or absorbing the costs like a municipality.

Commercial tipping fees vary across Virginia, some being expensive, other communities with a more reasonable fee structure. Most all landfills accept woody debris, not to be placed in the landfill, but later subjected to tub-grinding and sold as a low quality mulch. Landfill fees help to foster the better use of urban trees.

No.

Yes, we could reach out to City of Boise Public Works folks to learn more.

DO YOU HAVE HIGH RATES OF **VACANT BUILDINGS** IN YOUR AREA? (HOUSING AND COMMUNITY DEVELOPMENT MAY KNOW THE ANSWER)

No, not really. I am not aware of any communities that have high vacant building rates like Baltimore.

Overall the vacant building rate in most of Virginia is minimal compared to some urban areas across the USA.

Yes.

I don't believe so.

WHAT ARE THE RATES OF **INCARCERATION AND RECIDIVISM** IN YOUR AREA? (PUBLIC SAFETY AND CORRECTIONS MAY KNOW THE ANSWER).

Not certain about this in the Treasure Valley.

HOW MUCH DOES INCARCERATION COST PER YEAR (AT AN ESTIMATED COST OF APPROXIMATELY \$37,200 PER PERSON PER YEAR, MARYLAND TAXPAYERS SPEND \$288 MILLION ANNUALLY TO INCARCERATE PEOPLE FROM BALTIMORE CITY. IT COSTS AN AVERAGE OF ABOUT \$71,000 PER YEAR TO INCARCERATE AN INMATE IN PRISON IN CALIFORNIA)?

Roughly, 22 percent of inmates released from the state's prisons end up re-incarcerated within three years. Based on 2015 date, the annual cost of incarceration is approximately \$22,000.

The annual cost of incarceration is approximately \$22,000 (2015 info).

WHAT ARE THE **RATES OF UNEMPLOYMENT** IN YOUR AREA? (DEPARTMENT OF LABOR, LICENSING, AND REGULATIONS MAY KNOW THE ANSWER).

Statewide the Virginia unemployment rate is approximately 3.2%.

The present unemployment rate for Virginia is approximately 3.2%.

Not certain about this in our area (ID).

ARE THERE **EXISTING SERVICE PROVIDERS/ RESOURCES** FOR JOBS, REENTRY PROGRAMS, ANTI-RECIDIVISM PROGRAMS, EMPLOYMENT ASSISTANCE, ETC. WHO ARE THOSE PARTNERS AND WHAT IS THEIR CAPACITY?

Via Joe L. - There are at least 20 convict reentry programs across VA > <https://exoffenders.net/reentry-programs-assistance/virginia/>

There are at least 20 convict reentry programs across VA > <https://exoffenders.net/reentry-programs-assistance/virginia/>

Yes.

I'm sure there are, but this aspect to an urban wood utilization program has not been explored here.

WHO ARE **POTENTIAL SUPPORTERS OR INTEREST GROUPS** SUCH AS STATE, CITY, COUNCIL MEMBERS/ LEGISLATORS WITH AN INTEREST IN REENTRY JOB OR JOB TRAINING PROGRAMS, URBAN BLIGHT, SUSTAINABILITY, OR REVITALIZING OR BRINGING IN NEW INDUSTRIES THAT WOULD USE URBAN WOOD?

There are several potential supporters to these types of programs. I am aware of reentry programs in both Pennsylvania and Maryland. I have worked specifically on a program with disabled veterans in Virginia and one of the biggest issues found is access to transportation to and from the job for all 3 programs.

There could be any number of county, town and city leaders interested in ex-offender reentry/employment programs. This is especially true in some of the counties with a higher unemployment rates such as south-side and southwest Virginia. There would also be interest in some of the municipalities with underserved populations, and those areas where there is both higher unemployment and a rural opioid crisis.

Philadelphia Parks & Recreation, Fairmount Park Conservancy. PowerCorps PHL, Education Works, William Penn Foundation.

This is an area where we haven't explored yet, but there is a lot of potential. We could tap into public and private sustainability directors networks and also into corporate partners who are interested in driving sustainability to benefit their company and local community.