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Arbor Day Foundation Tree Program Recommendation

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Arbor Day Foundation®

TREE PROGRAMS RECOMMENDATIONS REPORT

TREE CITY USA
TREE CAMPUS HIGHER ED.

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Executive Summary

Project Description
We explored ways for the Arbor Day Foundation (ADF) to increase the value proposition for Tree Cities and Tree Campuses through application addendums and existing organizations.

Recommendation
We propose including an addition to the Tree City application for a grant awarded to Tree Cities that plant trees in underserved areas of the community.

We also recommend inviting Tree Campus to join the Alliance for Community Trees (ACT). Through membership, they will attend and participate in the Partners in Community Forestry Conference.

Rationale
The Tree City program is being under-utilized in connecting resources with communities. ADF can play an advocate role in decreasing environmental inequity while strengthening brand recognition and partnerships through the implementation of this grant program. Additional resources will increase the value of each Tree City's membership and attract more cities to join as perceived benefits increase with funding opportunities[1].

A major problem stagnating the growth of the Tree Campus program is the lack of value and recognition available to the current members. Our recommendation will provide these institutions with a way to network, learn, and share their devotion to trees. ACT provides a way to share knowledge and invites corporate sponsors to get involved, bringing value to Tree Campuses. Growing the planting partner network is crucial, and campuses could fill that role.

Timeline
Recruiting, hiring, and onboarding a full-time Tree Program Coordinator will take six months. Proposed amendments to the Tree City application will take approximately one year to implement. 2022 will launch the new application. 2023 will be the first year of awarding grants to community members. Increases to the grant fund will occur continually.

Marketing to Tree Campuses the benefits of joining the ACT will take place over the next six months after a new coordinator is hired, given that the infrastructure for the Partners in Community Forestry Conference is sufficient. New recognition to Tree Campuses will be fully implemented by 2023.

Takeaways
In short, our recommendations will provide the Arbor Day Foundation with clear objectives and projects to complete in order to increase the value proposition for new and existing Tree Cities and Tree Campuses. The added value will lead to improved growth within these programs, widening the access to resources and partnerships available to ADF.

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[1] "How cities and business can work together for growth" https://www.pwc.com/gx/en/psrc/pdf/gcba-cities-business-growth.pdf

Tree City USA

Supporting Analysis

The Tree City USA program reaches 3,500 cities across the United States. This large, expansive program has an impact on diverse cities with diverse populations. While each city may have some unique characteristics, most have one unifying trait: unequal distribution of wealth and environmental resources[2]. The application for current Tree Cities provides much information, but we believe there is more than can be gleaned from the application process. Understanding how the cities are allocating their trees provides insights into the equity of environmental resources. Optional grant funding for cities targeting tree care in underserved areas will incentivize Tree Cities to be more equitable or make intentional effort to plant trees where they are needed most. Current options for this type of funding are constrained by ADF's corporate partner, TD Bank, causing ADF to have less control of the process.

Tree City USA applications are being under-utilized in the effort to remedy environmental injustices. Urban tree canopy can be seen correlating with income level in many cities across the United States. The city of Milwaukee is a keen example to see how decreasing wealth and homeownership is correlated with decreased tree canopy cover[3]. The disparity can clearly be seen in Figure 1 of the Appendix. By using ADF's established program and network, ADF can have a hand in reducing environmental inequity through the inclusion of an application addendum. Collecting this information can be vital in marketing efforts to corporate partners, members, and the residents of Tree City communities. The benefit on the applicant's side is the possibility of additional funding. Grant funding is money that never needs to be repaid and is allocated to a specific task, meaning different parties do not have to lobby for control of the dollars. This makes additional grant funding a very strong potential benefit for communities[4].

ADF's involvement in this program demonstrates a strong social awareness. With increasing conversations surrounding systemic inequities, ADF has the potential to be a leader in reducing environmental inequities. ADF does much of their current persuasive selling around the idea that trees and the environment are non-political and most agree on the benefits of having a lush urban canopy. Using Tree Cities to lead the charge in addressing systemic economic and environmental inequities is a non-controversial way to increase the quality of life in underserved neighborhoods of tree cities. ADF itself acknowledges the tree's ability to do this.

Targeting underserved communities through a grant application program incentivizes Tree Cities to work alongside ADF in achieving UNSDGs, as seen in Figure 2 in the Appendix. The UNSDGs number 3, 11, and 15 align most with Tree Cities' mission. UNSDGs, or United Nations Sustainable Development Goals "provide a shared blueprint for peace and prosperity for people and the planet, now and into the future[5]." ADF has utilized these goals to measure their

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[2] "America's Cities Are Staggeringly Unequal" https://www.theatlantic.com/politics/archive/2020/07/us-cities-massive-wealth-and-education-gaps/614491/

[3] "Constructed Climates" http://people.duke.edu/~wgw/ConClim/chap-6-human-health-urban-inequities/6-9-milwaukee-income-trees.html

[4] "The Importance of Grant Writing for Non-Profits" https://lesley.edu/article/the-importance-of-grant-writing-for-non-profits#:~:text=A%20grant%20is%20a%20tool,an%20issue%20of%20local%20or

[5] "Sustainable Development Goals" https://sdgs.un.org/goals

impact to make their efforts easily communicable to larger audiences. The commitment to these goals have far reaching effects not only in the underserved communities, but also in the global campaign of these sustainability goals.

Targeting underserved communities that are usually resided in by racial minority groups addresses the social ills of environmental racism. Environmental racism stems from the disproportionate environmental hazards on people of color[6]. Trees' numerous benefits[7] of increased mental health, cleaner air and water, lower stress levels, and correlation with increased economic health should be distributed in communities equally. Figure 3 in the Appendix shows all the value of community trees. The grant program we are proposing addresses and incentivizes communities to take this action beyond the current activities Tree Cities are already involved in to maintain their Tree City status.

Recommendation

In order to address the balance of tree inequity within its Tree Cities, ADF will implement a grant program that allows current Tree Cities to apply for funding to be used to bring the benefits of trees to underserved areas of the community. In addition to the original application that Tree Cities are required to fill out, cities wanting to participate will fill out a small additional application attached to the main application. In this application, cities will be asked to demonstrate efforts they have already undertaken to target underserved communities and provide a plan for how they will allocate funds if awarded. Tree cities that have received grant funding in previous years will be asked to show how the funding was used; this gives ADF better data on how their funding is being used and the impact that they are having in underserved communities. Underserved will be defined by each Tree City, but loosely, underserved should be an area with a lower-than-average income level, high rate of crime, presence of Title I school in the district, or other case-by-case rationalizations.

The additional funding will only be available for cities that are already participants of ADF's Tree City program for at least one year. This time gives cities the opportunity to get accustomed to the Tree City program and assess which areas of their community are underserved and in need of additional resources. If granted funding in upcoming years, Tree Cities will be required to use the funding in areas of their community that are economically underserved and will have to provide justification to the identification of these areas.

ADF has an extensive network of corporate partnerships that can be leveraged to provide the additional funding needed to finance the grant program. ADF will ask corporate partners if they would like to participate in a new initiative to push for tree equity in underserved areas of its Tree Cities. Participation of corporate partners in the program will give corporations the benefits of tax write-offs, as well as the intangible social benefits of working to correct injustice in their communities. Finally, being a part of the program will give corporations the connections with tree cities that they often desire.

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[6] "Environmental Justice and Environmental Racism" http://greenaction.org/what-is-environmental-justice/
[7] "Health Benefits from Forests"
https://www.dec.ny.gov/lands/90720.html#:~:text=Using%20the%20Profile%20of%20Mood,of%20forests%20are%20further%20magnified

![Arbor Day Foundation logo]

Challenges

The new initiative program may create some challenges for ADF and its Tree Cities. The first of these challenges is responding to resistance that communities might have to getting involved in the grant-funded program. This program requires cities to undertake additional work, as they will have to identify underserved areas of their community and then allocate the resources accordingly. Identifying these underserved areas may be especially challenging as communities will be tasked with assessing which areas are underserved. We encourage ADF to allow each Tree City to identify its own underserved area. Using this honor system, we believe cities will be truthful knowing that randomized audits occur to verify how the grant is being used. Tree Cities will have the best knowledge of their own cities' needs and, rather than setting arbitrary income thresholds, this system allows different communities to address their specific needs. It also reduces the workload of ADF members in determining each city's eligibility. Randomized audits can be utilized as the program develops to ensure all projects meet the general definition for "underserved." A grant recipient deemed to not use funds in a correct manner will be notified of their ineligibility to receive this grant ever again.

Potential Funding Source for Arbor Day Foundation Tree Cities Grant
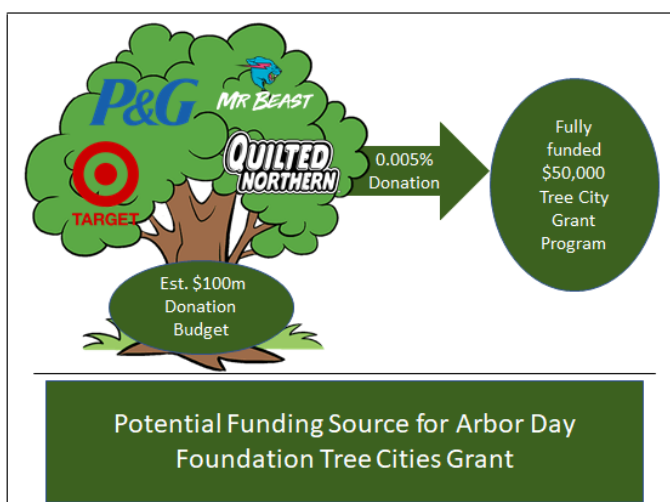
A challenge to consider is if corporate partners end up not participating at the level we expected. In this instance, the grant fund would not have enough dollars to award significant grants. It also becomes difficult to market this grant to Tree Cities if there is an inconsistent number of grants or amount awarded. This challenge can be overcome in a consultative process. The corporate partnership managers who oversee relationships with large donors or partners will have to be educated on the grant program and how it works. After that, the corporate partnership managers will have this opportunity to present to corporations who are looking for opportunities to give back to communities. Current and previous partners of ADF tend to have long lasting and diversified relationships when it comes to supporting various projects that ADF presents. It is well within reason to expect a corporate partner like Quilted Northern, Mr. Beast, Proctor and Gamble, or any other big or small brand to consider donating to this grant fund. Many partners like CSX or Double Tree Hilton have demonstrated that there is demand for supporting programs like these through their current support of projects in the Alliance for Community Tree network. To overcome this challenge, ADF only needs one large organization, like Target, to buy in at the full $50,000; this amount is feasible for an organization like Target that gives up to $28 million to philanthropic based initiatives in 2019[8].

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[8] "Target Philanthropy" https://corporate.target.com/corporate-responsibility/philanthropy

Implementation Plan

Because this program is a direct extension of ADF's already established Tree City program, the additional resources needed, aside from the additional funding, will be minimal. ADF will likely need to make an upfront investment to kick off the program and create the advertising to Tree Cities to create necessary awareness. However, marketing will only be directed toward cities already associated with ADF's Tree City program. As ADF is already in contact with these cities, information can be conveyed to current Tree Cities through email initiatives with digital flyers aimed at raising awareness regarding the new grant funding program. ADF can utilize in-house marketing services to create these flyers and launch informative campaigns. The cost of launching a new project is recommended to be 5% the value of a new product, or in this case, the grant[9]. As such, the initial investment should be no more than $2,500, or 5% of $50,000.

Grant amounts will be a function of the number of applicants and the size of the grant fund. In the first year preparing for launch, ADF will work with current corporate partners to attempt to secure funds. Based on past contracts with corporate partners/sponsors, current Corporate Partnership Managers, with the assistance of the Tree Program Coordinator, could secure about $50,000 from various sources in the first year. As the program grows, we expect more partners to be interested in donating. In five years, we believe the fund can be at least $100,000 annually. In the first year with a $50,000 fund, two $25,000 grants should be awarded. This amount is large enough to have impact, but remains small enough to allow ADF to grant two awards. Small and large cities will have equal opportunity to apply, and population will not be used to determine a grant winner. The individual grant size can grow as the fund grows or the number of awards can increase: both have value in the eyes of this consulting group. The grant should be spent in accordance with the Qualified Expense sheet already utilized. Our team recommends the grant be awarded based on the following criteria: impact of efforts on underserved community, involvement of/engagement with underserved community members, city/municipal support and media reporting, ratio of dollars spent to trees planted or protected. These qualities will be assessed through the new additional application through questions like "How many trees were planted in the underserved community?", "How many volunteers helped in any capacity?", "How many of them lived in the affected community?", and "Describe how local government was involved in this effort, if at all." Final determination of which Tree City is awarded will be determined by Program Manager Alayna Tucker and the new proposed full-time coordinator (See Joint Implementation and Timeline, pg 17).

Grants will only be awarded after evidence of current efforts to target an underserved community. For example, a 2022 application will include the new additions to the application focused on how the community targeted underserved areas. Applications will be reviewed and granted based on agreed upon criteria. The awarded community will then demonstrate how they used the funding in their 2023 application, which will also serve as their reapplication for consideration of another grant.

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[9] "How much does it cost to lanuch a product from concept to market?" https://www.trig.com/explore/how-much-does-it-cost-to-launch-a-product-from-concept-to-market

Organizational Value

The creation and implementation of a program that addresses economic injustice will create numerous benefits for ADF. A program addressing hot topic social issues will give ADF significant positive name recognition in society. The push for correction to social issues like racism and economic injustice are on the rise right now, especially among younger generations. This grant program will create notoriety that will allow ADF to tap into younger markets that they may be struggling to acquire. Strategic press releases drafted and shared by the new coordinator and ADF's internal marketing department will help spread the word. Once created, social media can be leveraged to generate a "viral" post.

In addition, ADF will be able to collect relevant data from the additional application that cities are required to fill out from the grant funding. Especially in applications from cities looking to continue in receiving grant-funding, ADF will be able to gather data associated with their impact in underserved communities which can be communicated to a number of different stakeholders.

Based on the average cost of trees planted in Chillicothe and Minneapolis from ADF's shared materials (~$150), if the entire $25,000 grant was only used to plant or care for new trees, roughly 165 new trees would be planted in a designated underserved areas of two municipalities with a total of 333 total trees planted. In a municipality like Chillicothe, that amount matches the number of trees planted in the entire city, so the underserved community grant would double the number of trees planted in this city. This is a considerable number of trees for many of the small Tree Cities. We recognize cities of different sizes will see different proportional effects, but from this illustration we can demonstrate that at least some cities could see a doubling in their tree plantings. In large cities, the proportional effect may be smaller, but new trees being planted still has an impact in helping ADF achieve its mission of planting, nurturing, and celebrating trees. Raw costs of planting trees are different based on variables such as types of tree, location, labor hours versus volunteer, and other miscellaneous overhead fees.

As the Tree City program becomes more developed and this grant program for targeting underserved communities takes off, we expect current and prospective Corporate Partners to be interested in donating to the grant fund out of which grants are awarded to cities. This is a reasonable expectation because many current partners ask for different programs to support. Many partners like the philanthropic lens that this partnership casts on their organization[10]. Donations to this fund will be tax-deductible, and Corporate Partners will benefit from positive social marketing efforts. Trees are non-controversial, yet an important cause that nearly every corporation can rationalize including in their charitable budget. Partners will be drawn to ADF and to donate to the grant fund because they will be able to tout involvement in climate change mitigation, combating environmental inequity, and the beautification of cities all through the simplest and most scalable solution: trees.

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[10] "Small Business Guide to Charitable Giving and Tax Deductions" https://www.businessnewsdaily.com/10470-small-business-guide-charity-donations.html#:~:text=There%20are%20a%20few%20reasons,communities%20to%20keep%20them%20afloat.&text=%22There%20isn't%20really%20any,a%20part%20of%20our%20community

Tree Campus Higher Education

Supporting Analysis

As it currently stands, the value of being a Tree Campus is limited by the lack of benefits available to these institutions. As a recognition program, Tree Campuses are getting a great pat on the back, but fail to see how their impact manifests on a larger scale. The current growth award system is a good start in rewarding campuses for maintaining a solid system for their trees, but there is more ADF can do. One major problem is that Tree Campuses do not have much structured exposure to each other. Tree Campuses also are not being utilized to their full potential as partners for corporate sponsors to invest in. These campuses and universities would benefit from the connections that the Arbor Day Foundation has established with these organizations. As our analysis will show, there is an existing organization made possible by ADF that can accomplish both inserting Tree Campuses into a vast network of tree-loving entities and connecting them to corporate sponsors to assist them in developing their tree programs.

Connecting Networks

Recent times, especially during the Coronavirus (Covid-19) pandemic, have demonstrated a need for colleges and universities to be connected more than ever. The problems encountered by campuses in their pursuit of stronger and healthier tree programs are certainly not as universal as the issues posed by the Covid-19 pandemic. Still, the need for collaboration when solving big problems was made clear. Originally, institutions tackled the issues caused by the pandemic largely on their own. However, as time has passed, they have realized how much more valuable a collaborative approach can be[11]. Tree Campuses would benefit greatly from having access to similar entities that may be enduring the same challenges. This is especially true in smaller institutions that likely do not have the resources, human or otherwise, to handle potential problems that they may face.

Unfortunately, some Tree Campuses are not even aware of other institutions in their area with the same distinction. One example of this Mississippi State[12], which recently touted an article that they were the only campus with the Tree Campus Higher Education distinction in Mississippi. In fact, Southern Mississippi and the University of Mississippi are as well. If institutions are not aware of one another, there is no way for them to collaborate and learn from each other. It is clear that many Tree Campuses value their programs and want others to know about their current efforts. There were numerous articles posted on university websites detailing their Tree Campus programs, but none mentioned collaboration between institutions.

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[11] "The Networked University in a Pandemic – and Beyond"
https://www.insidehighered.com/views/2020/03/24/networked-relationships-can-help-colleges-through-pandemic-and-beyond-opinion
[12] "MSU named Tree Campus USA for Seventh Consecutive Year"
https://www.msstate.edu/newsroom/article/2020/06/msu-named-tree-campus-usa-seventh-consecutive-year

In considering ways to get campuses connected with each other, our group looked to current programs in place at the Arbor Day Foundation. A current program within ADF that could provide a mechanism for sharing knowledge and celebrating Tree Campuses is the Alliance for Community Trees (ACT). Current members of ACT include nonprofit organizations, municipalities, urban forest councils, and individuals[13]. This community is able to share ideas through a Facebook group, along with the yearly Partners in Community Forestry Conference.

Members also have access to a directory of other tree-focused organizations, which could prove invaluable to a university seeking to learn more about how they can improve their tree programs and problem solve. Inviting campuses to join this group would immediately help to plug them into an extensive network where they could obtain information and share success stories with others. The Partners in Community Forestry Conference could also prove to be an ideal forum for recognizing and celebrating Tree Campuses that have shown dedication in their pursuit of a strong tree program.

PROFILE

The range of institutions that have become Tree Campuses is impressive. Right now, there are 400 Tree Campuses out of the over 5,000 college institutions in the US. Many of these campuses have developed strong programs to celebrate and nurture the trees they care for.

One example is Virginia Tech, where university arborist Jamie King utilized their extensive inventory of trees to substantiate valuing their trees as a **$30.6 million capital asset** based on the real estate value, air quality improvements, and other factors.

Currently, there is not a structured method for people like Jamie to connect with someone like Brad Spanbauer, sustainability officer at the University of Wisconsin-Oshkosh. Brad is surely in tune to the value that trees create, as he noted in a March 16, 2021 article how important trees are for mitigating the effects of climate change.

JAMIE KING
University Arborist

UNIVERSITY OF WISCONSIN
OSHKOSH

Virginia Tech and UWO are two vastly different universities, with Virginia Tech having around twice the number of students enrolled. The climates in the two areas are also very different.

One might ask, how could the Tree Campus programs at these institutions be linked?

The short answer right now is they are not.
On a day-to-day basis, this likely would not be any cause for concern for either campus. However, consider what might happen if people responsible for construction at UWO do not have the same appreciation for trees that Brad has. If they were to push for new buildings that would damage the tree ecosystem at UWO, Brad may not be able to persuade them to reconsider based on his current knowledge. Brad would likely feel nervous for the future of the trees on UWO's campus, and he might feel alone in his struggle against campus pressures to create new facilities at the expense of trees on campus.

Alliance For Community Trees®
An Arbor Day Foundation Program

Adding Tree Campuses to the Alliance for Community Trees would offer someone like Brad at UWO access to people that could help him handle his problems, like Jamie at Virginia Tech. Questions could be asked via the member directory to specific individuals or posted to the ACT Facebook group. An ideal outlet for sharing ideas would be the Alliance for Community Trees day of the Partners in Community Forestry Conference.

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[13] "Alliance for Community Trees" https://www.arborday.org/programs/alliance-for-community-trees/
Profile: https://vtnews.vt.edu/articles/2020/04/unirel-campus-arborist.html & https://uwosh.edu/today/95331/uwos-three-campuses-awarded-consecutive-tree-campus-higher-education-recognition/

Along with sustainability officers and university arborists, college students are among the most likely demographic to care about the environment. College students are often driven by climate grief, defined as "an overwhelming sense of sadness, anxiety, or hopelessness about the loss of natural ecosystems and the real possibility of planetary catastrophe[14]." Instead of dwelling on the grim situation our planet could be in if trends continue, students are taking action to make the change. Arguably the best way for students to make the change is getting involved in organizations on the campuses they attend.

MAKING THE CONNECTION
UNIVERSITY OF ILLINOIS - CHICAGO

A group of students at the University of Illinois at Chicago demonstrated their knowledge in 2014 through Tree Campus Higher Education. Their service learning project quantified the economic and public health benefits provided by trees.

WHILE THEIR WORK WAS POSTED ONLINE, THERE IS NO WAY OF KNOWING WHO IT MAY HAVE REACHED.

THE ALLIANCE FOR COMMUNITY TREES AND THE PARTNERS IN COMMUNITY FORESTRY CONFERENCE COULD PROVIDE STUDENTS LIKE THOSE AT UIC A NETWORK TO SHARE THEIR WORK.

Partnerships

Our contacts at ADF noted one of the current barriers to planting more trees is a lack of trusted community partners. Organizations involved with the Alliance for Community Trees are eager to provide more funding to plant more trees, but there is currently a shortage of partners to plant the trees in any given community. Recognizing this disparity, our team aimed to find a way for the Arbor Day Foundation to connect corporate partners with local campuses, unlocking untapped potential when it comes to planting trees in communities across America.

As part of our analysis, we learned just how corporate partners work with current members of ACT. The Alliance for Community Trees is a network of community-based organizations that ADF relies on as partners when planting projects occur in any given city. When ADF is approached by a donor or corporate partner to plant trees in a community, either for employee engagement or philanthropic reasons, ADF grants funds to ACT to facilitate the event with expertise in areas like purchasing local trees, guiding volunteers, and creating the event experience. Those involved in working with donors and corporate entities are called planting partners. When ACT grows, all of ADF benefits as it unlocks new capabilities for ADF to meet the desires of funders. Without trusted ACT members in various cities, ADF is limited in where it can plant trees.

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[14] "Climate Change Activism on College Campuses" https://www.bestcolleges.com/blog/how-to-stop-climate-change/

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The benefits of a corporate partnership to campuses are numerous[15]. Developing a relationship with corporations provides students on-campus access to mentorship, experiential learning opportunities, and job opportunities. These partnerships provide the university with increased revenue through corporate sponsorships of campus initiatives. Corporate partnerships provide campuses with access to long-term secure funding for a variety of areas. In this context, it could provide campuses with additional resources to expand their tree programming, including planting more trees on campus and in the surrounding community.

The benefits of a partnership with campuses are just as well-documented for corporations[16]. One of the primary benefits of a campus partnership is that it provides companies with access to a workforce pipeline. Identifying solid talent can be both difficult and expensive, but partnering with campuses can provide corporations long-term exposure to students to help identify talent in a non-interview setting. A second benefit for corporations is that they can enhance their public image through partnering with ADF[17]. Partnering with campuses can also help many corporations reach their corporate citizenship goals. Campus and corporate partnerships are proven to provide benefits for both parties.

Recognition

Under the current Tree Campus Higher Education setup, there is no opportunity for college campuses to be recognized for going above and beyond the minimum membership requirements. The campuses that meet the bare minimum standards receive the same level of recognition as the campuses that have outstanding tree programs. Our team wanted to find a way to recognize the campuses that exceed expectations. If the Arbor Day Foundation can create a system that provides added value to exceptional campuses, it could incentivize more campuses to continue pushing their tree programming to the next level.

One of the best ways to stimulate growth and build excellence is through competition. Healthy competition is proven to provide validation and recognition for top performers, while also motivating those lagging behind[18]. When people feel valued, they are more likely to contribute and share with each other. In this way, a healthy sense of competition creates a culture where each member of a group is encouraged to present their accomplishments and celebrate the efforts of others. Our team believes that finding a method to promote healthy competition will provide Tree Campuses with an incentive to build their tree programs beyond the minimum requirements necessary.

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[15] "The Benefits of Building University Corporate Partnerships"
https://www.colorado.edu/academicfutures/sites/default/files/attached-files/benson_et_al.pdf
[16] "The Benefits of Building University Corporate Partnerships"
https://www.colorado.edu/academicfutures/sites/default/files/attached-files/benson_et_al.pdf
[17] "The Advantages of Corporate Sponsorship Funding" https://smallbusiness.chron.com/advantages-corporate-sponsorship-funding-18081.html
[18] "The Psychology Behind Competition: Why Incentives Work"
https://www.gavelintl.com/psychology-behind-competition-incentives-work/

Recommendation

As our analysis indicates, Tree Campuses would receive a significant increase in value from being in the wider network of organizations that are dedicated to celebrating and nurturing trees. With this in mind, our consulting group proposes inviting Tree Campuses to join the Alliance for Community Trees. This would plug universities and colleges into an extensive network of knowledgeable members of their community that would be able to help them organize a solid tree program and handle issues that arise. This creates intangible value of a support network and tangible value from finding and sharing cost efficiencies with others in this network. The Partners in Community Forestry Conference also would allow a public forum for campuses to network, learn, and promote their programs. In a way, this would expand the application process for Tree Campuses as they seek membership in a new coalition between programs. In testing this recommendation, Tree Campuses should have the option to join ACT, but will not be penalized for not participating. In five years, we recommend another analysis to see if joining ACT should remain optional or become a permanent requirement of the Tree Campus application.

Along with connecting campuses to the ACT network, we recommend making Tree Campuses planting partners to capitalize on the benefits of corporate sponsorship. As mentioned previously, planting partners are the organizations that the Arbor Day Foundation matches with donors and corporate entities that want to make a difference in their community. ADF will serve as a facilitator between Tree Campuses, current ACT community-based organizations, and corporate sponsors to ensure all are maximizing their impact and helping achieve the Arbor Day Foundation's mission. Our analysis indicates that corporate sponsors are eager to partner with entities that will assist them in meeting sustainability goals and improving their public image. Growing the planting partner network will make it possible for more corporate sponsors and donors to get involved through ADF. As the number of Tree Campuses in the Alliance for Community Trees increases, as will the resources available to the Arbor Day Foundation.

Recall Brad:

AT THE 2019 PCF CONFERENCE, JANE GOODMAN, EXECUTIVE DIRECTOR OF CUYAHOGA RIVER RESTORATION, GAVE A PRESENTATION ON "TURNING LOCAL TREE OFFICIALS INTO TREE HUGGERS"

Imagine how much better Brad would feel about tackling difficult issues after discussing them with someone like Jamie at Virgina Tech who knows how to present the value, both economic and non-economic, that trees provide and hearing an expert like Jane Goodman present.

Along with inviting all Tree Campuses to attend the PCF conference, we propose giving special recognition to Tree Campuses that have demonstrated excellence in their tree programs. These recognitions would be given to a limited number of Tree Campuses that have joined the Alliance for Community Trees. We recommend recognizing three to begin. The scarcity of these awards is crucial, as they would not mean as much if they were easy to obtain. The campuses to be recognized will be selected strictly based on objective criteria. This way there will be no discrepancies or disagreements when it comes time for the Arbor Day Foundation to select the recipients. The recognitions that our team proposes be awarded are as follows: Highest number of trees planted compared to student enrollment (i.e., Number of Trees Planted/Student Population), Highest Percentage Increase in Campus Tree Canopy, Highest Percentage of Campus Students involved in Arbor Day Observance activity. These metrics can be derived from Tree Campus member applications and new fields can be added to easily track this information. This recommendation will allow Arbor Day Foundation to give some well-deserved recognition to campuses with outstanding tree programming.

The awarded campuses will be recognized, specifically, during the Alliance for Tree Communities Day that happens in conjunction with the Partners in Community Forestry Conference. Along with recognizing the top campuses based on insights gleaned through applications, we recommend that ADF encourage at least one Tree Campus to prepare a presentation for the Alliance for Community Trees Day of the Partners in Community Forestry Conference. Students like those at the University of Illinois at Chicago mentioned previously are examples of those who would put their work on display. This would help them network with like-minded individuals in communities where they could seek employment after graduation.

To fully connect Tree Campus Higher Education to the PCF conference, we propose waiving the registration fee of $45 for each attending campus (with each campus responsible for their respective travel costs) to increase campus engagement in the larger tree programming that the Arbor Day Foundation takes part in. The students will gain valuable knowledge and new insights about potential tree programming that they can bring back to their campus and begin immediately. Offering a faculty ticket will provide students with a chaperone, but also ensure that there is continuity across campuses from conference to conference. This way, campuses can have one constant representative to promote Arbor Day Foundation and Tree Campus Higher Ed. year after year.

Challenges

The Arbor Day Foundation currently functions with projects siloed and separated with little overlap. Our proposal disrupts the separation of siloed projects by mixing campuses with nonprofits and individuals. For instance, integrating the Tree Campus network with the Alliance for Community Trees could pose a threat to the integrity and reputation the Alliance for Community Trees currently holds. However, we believe that the values of these entities are all similar enough to warrant joining them together. In fact, it would benefit them all by widening their network and knowledge base.

Some campuses might be hesitant to pay the $125 membership fee to join ACT. This can be overcome by demonstrating the value to the campuses that we've thoroughly discussed thus far. Marketing tactics and engagement are crucial to communicating this value. Just like any selling

opportunity, demonstrating the value of membership will reduce Tree Campuses' potential hesitancy to pay for membership.

Campus leaders and faculty members are bombarded with organizations vying for their membership and participation. The overwhelming number of community involvement options presented to universities may pose a challenge to the Arbor Day Foundation. To excite and incentivize campuses to join the Alliance for Community Trees, the Arbor Day Foundation must effectively market the program and its benefits. Perhaps the best way to do so would be to focus their marketing efforts for Tree Campus in a small region to begin with. The initial test region, say the upper Midwest for example, would serve as a trial-and-error opportunity for ADF's marketing efforts. Ideas include presenting the benefits of ACT directly to faculty and student leaders, creating before-and-after advertisements of what campus currently looks like and could look like after investing in trees and the ACT, and educating campus at large on the importance of trees. Through experimenting with marketing techniques in the test region, ADF will have more confidence in which technique to employ when broadening efforts to new regions.

Implementation Plan

One of the major steps of the implementation plan will be marketing this new partnership. There will be a significant learning curve for campuses in the beginning. Arbor Day Foundation will need to have informative literature to distribute to campuses that outlines the benefits of joining the Alliance for Community Trees. This will be done primarily through emails and phone calls to the listed point of contact on the Tree Campuses application. ADF will need to clearly explain ACT's benefits in marketing materials to attract interest from campuses and get the partnership off the ground. Communication between ADF and campuses must be consistent but not overbearing, especially in the formative years of the relationship. In addition to being readily available to answer questions and lend a helping hand with tree planting initiatives, ADF must invest monetarily into the Tree Campus program and the partnership between college campuses and the ACT.

Marketing materials will primarily take the form of online flyers sent directly to the email addresses of faculty at target universities. ADF's internal marketing department should be consulted to facilitate this roll out for their expertise, efficiency, and brand consistency. Based on previous similar marketing communications, ADF will need to allocate $1,000-$3,000 for this project.

Communication between the Corporate Partner Managers (CP Managers), the Alliance for Community Tree Managers (ACT Managers), and the new full-time coordinator is essential. More information about the full-time hire is provided near the end of this report (See Joint Implementation and Timeline, pg 17). Time spent coordinating these meetings to converse over details of implementation will take away from time spent on other projects, at least initially. As such, the cost of these new programs should be derived from a portion of the CP Managers and the ACT Managers who will collaborate on this project with the new hire. In the first 3 years of roll out, no more than 20% of one CP Manager and 40% of one ACT Manager will be spent on this collaboration. Based on general knowledge of ADF's pay structure, a CP Manager average salary is $48,000-$52,000 and an ACT Manager ranges from $45,000-$50,000 with both roles depending on tenure and responsibilities assigned. Following the calculation, the combined range

of both these roles' expected time spent on the new roll out of this project is $18,600-$20,400. These estimates err on the most expensive side; having a larger budget allows for a pleasant surprise if the actual cost ends up being significantly less.

The variable cost of waiving Tree Campus registration to the PCF conference will depend on the number of campuses participating. As marketing rolls out, we budgeted for 20% of the 400 tree campuses to attend. This breaks down to $3,600 that the Tree Campus budget will pay to the ACT and PCF conference fund to make up the difference of waiving registration fees.

Organizational Value

Integrating Tree Campuses into ACT brings about two transactions of value. First, Tree Campuses will benefit from being plugged into a network that allows sharing of ideas. Campuses can share with other campuses in the area, and also get connected with community-based organizations near them to consult on projects and best practices. Second, when ADF uses ACT to facilitate Corporate Partners' events, these corporate partners can now have the opportunity to get connected with a campus in any area. This provides growth to the ACT network with possibly over 400 new locations being added to the map of ADF's trusted partners. Corporate Partners can continue working with the trusted community-based organizations of ACT, but will also be able to participate with colleges and universities. As we have already shown, there are many benefits with such partnerships. As both of these transactions of value increase, the overall incentive to be a Tree Campus, member of ACT, or a Corporate Partner increases as well. Each party will gain significant

benefit, which strengthens the overall brand of ADF and allows for all three programs to grow. As growth occurs, more opportunities arise to carry out the Arbor Day Foundation's mission to plant, nurture, and celebrate trees.
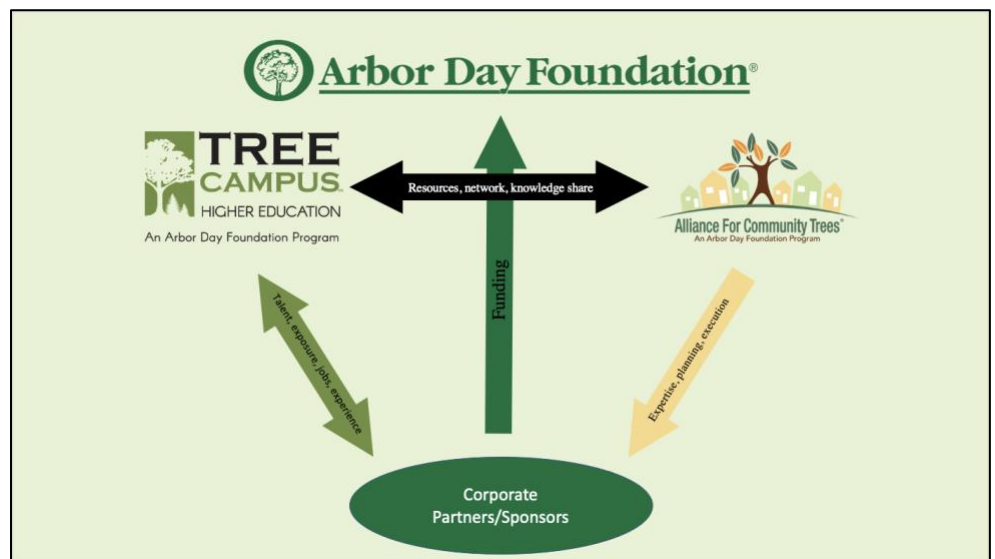
The organizational value that the Arbor Day Foundation would receive from our Tree Campus recommendation would stem from the value created for the individual universities and colleges. Opening up the Alliance for Community Trees to these organizations would offer ADF with a more cohesive network through which to promote their tree agenda. We believe that our recommendations will create enough value that even more campuses will want to strengthen their tree programs and sign up to be a Tree Campus that is a member of ACT. The publicity of the recognition earned, and the knowledge shared at the Alliance for Community Trees Day Conference would surely attract people like Michael Wallich, University Arborist at the

University of Southern California. He is very passionate about trees and is quite knowledgeable about them[19]. However, USC is not currently a part of Tree Campus Higher Ed. We are confident that our recommendations would offer enough value to campuses like USC for them to make the effort to become a recognized Tree Campus. The potential value of engaging new tree planters is invaluable, but even engaging 10 more universities to become Tree Campuses will result in a minimum of 30 new tree planters.

Another way that ADF would receive value from our proposal is through additional corporate sponsorships. The Arbor Day Foundation currently does a fantastic job of partnering corporate sponsors with communities. Adding campuses to the ACT would connect large corporate sponsors, like Puffs and FedEx, with local colleges and universities, resulting in a beneficial relationship for all parties. As mentioned previously, partnerships between corporations and campuses are highly beneficial for both parties. These benefits will inspire both campuses to join ACT and corporate sponsors to partner with members of the ACT. This will be an opportunity for ADF to obtain more funding and widen their reach in terms of the impact they can make on trees across the country.

Joint Implementation and Timeline

In crafting recommendations for Tree City and Tree Campus, our group recognizes that many of the implementation steps and timeline intersect. While each project has some implementation specifics to just that programs rolled out changes, this discussion examines where progress can be made in both areas simultaneously.

First, we recommend hiring an additional full time "Tree Programs Coordinator" to carry out the tasks related to our new proposals for Tree City and Tree Campus updates. Per personal industry knowledge of one of our team members, an adequate starting salary for this position is $38,000 before taxes. We've planned for 21 percent of the base salary to be allocated toward benefits, making the final cost of this new member come out to $46,000 (appendix). Our proposed programs have the capacity to double the amount of tree planting in some Tree City communities and engage with up to 800 new tree planters via students across Tree Campuses. We know these metrics are valuable to ADF per the Time for Trees Initiative and the additional salary can be supported by revenue-creating segments of the organization like coffee, carbon credits, member donations, and other venture programs.

The responsibilities of this individual will be divided between implementing changes in both the Tree City and Tree Campus recognition programs. This person will work closely with the Corporate Partner Managers, the Alliance for Community Tree program managers, and Program Managers, Alayna Tucker and Logan Donahoo. To manage the Tree City grant funds, this individual will advocate for funds to be used for the program and allocate those funds to applying cities. This individual will be an expert on the program and its benefits and will be included in conversations with corporate partners to acquire the needed funding.

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[19] "USC's trees thrive under watchful eye of dedicated campus arborist" https://news.usc.edu/155143/usc-arborist-keeps-campus-trees-green/

In order to facilitate the partnership between Tree Campus Higher Education and the Alliance for Community Trees, Arbor Day Foundation will use this role as a point of contact to handle any additional work. For Tree Campus responsibilities, this person will advocate for campuses to join the Alliance for Community Trees. By hiring a full-time employee, the Arbor Day Foundation will have a central point of contact to help ensure that the start of the partnership between Tree Campuses and the ACT goes smoothly. This person will also be used to evolve the partnership over time, gather feedback from campuses, and address any concerns that campuses may have.

Recruiting, hiring, and onboarding a full time Tree Program Coordinator will take six months. This includes evaluating external candidates. An internal hire or promotion will cut the orientation period down to four months as this person will already be familiar with ADF. Proposed amendments to the Tree City application will take approximately one year to implement. Over this time, approval will be gained from the CEO, President, and managing directors who help oversee these programs. Working with ADF's internal marketing will happen in this first year. Mockups for marketing material will take two to four months. 2022 will launch the new application with the addendum to apply for grant funding to target plantings in underserved communities. As applications come in, the new coordinator will be charged with reviewing and helping determine which communities are eligible for a grant. 2023 will be the first year of awarding grants to community members. Increases to the grant fund will occur continually as corporate partners provide funds.

Marketing to Tree Campuses the benefits of joining the ACT will take place over the next six months after a new coordinator is hired. As the marketing of the benefits of joining ACT is demonstrated to Tree Campuses, some may begin to apply and get plugged into the network. Given that the infrastructure for the Partners in Community Forestry is sufficient, little needs to be added to invite newly added Tree Campuses to the conference. Starting in 2022, Tree Campus representatives can be invited to attend the Partners in Community Forestry Conference. In 2023, eligible Tree Campuses will be invited to speak at the conference. By 2024, several campuses, ACT community-based organizations, and corporate sponsors should be working together on projects that bring prosperity to all; ADF will serve as a facilitator of those relationships. In 2027, we recommend another analysis to determine if this joint endeavor is successful and consider further expansion efforts. Complete timeline is viewable in Figure 4 of the Appendix.

Combined costs to implement both recommendations are displayed in Figure 5 and 6 of the Appendix. The figures demonstrate combined costs and impact of both programs. Total cost for all program implementations is $75,500. Conservative impacts after one year are 333 trees planted and 400 new planters engaged.

Conclusion

Our recommendations to modify the Tree City application to incentivize planting of trees in underserved communities and to invite Tree Campuses to join the Alliance for Community Trees will increase the value proposition for new and existing Tree Cities and Tree Campuses. The introduction of such changes will require the hiring of a full-time Tree Program Coordinator. Combined efforts of recruiting a new hire and amending the current Tree City application will mean that 2023 will be the first year of awarding grants to community members for their efforts in making the United States more equitable through tree planting. Likewise, the new recognition

to Tree Campuses in joining the ACT will be fully implemented by 2023. The benefits to ADF in implementing our Tree City recommendation are expanded partnership opportunities, increased tree equity in awarded communities, and positive name recognition in society; the Tree Campus recommendation allows for greater networking and connection with corporate partners and community members. Improved growth and the widening of access to resources and partnerships available to ADF will result with implementation of our recommendations.
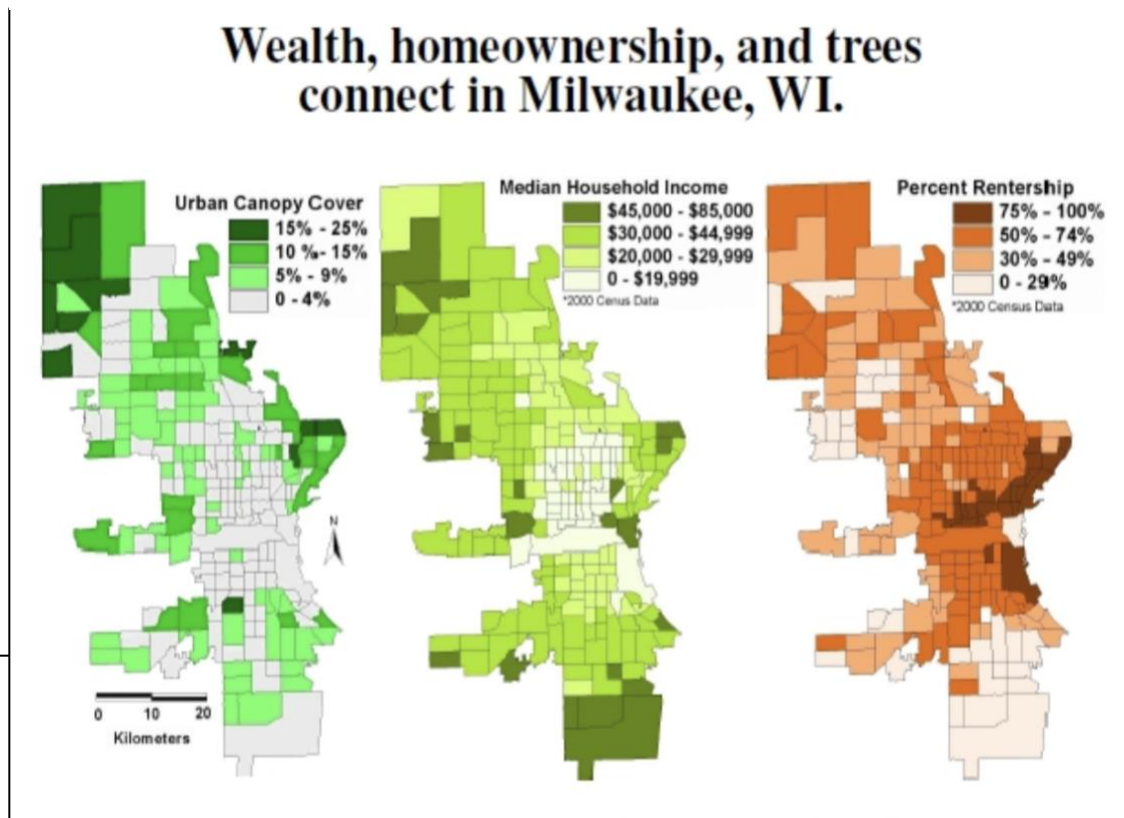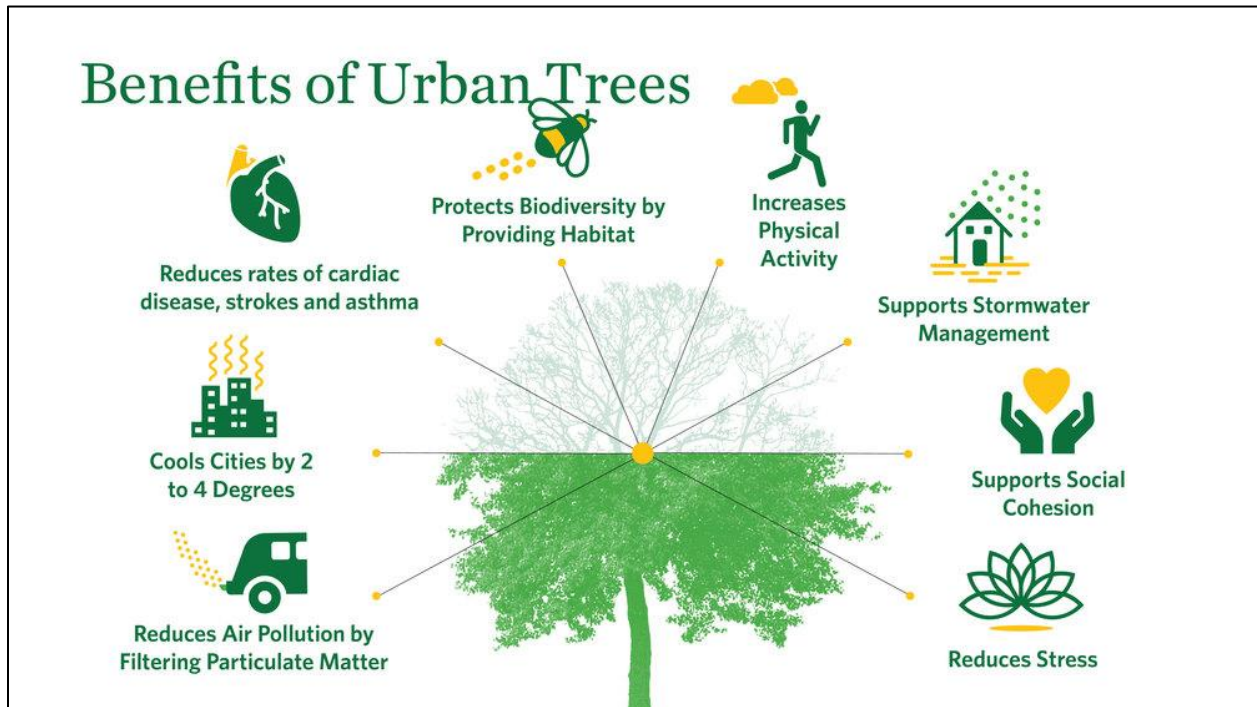
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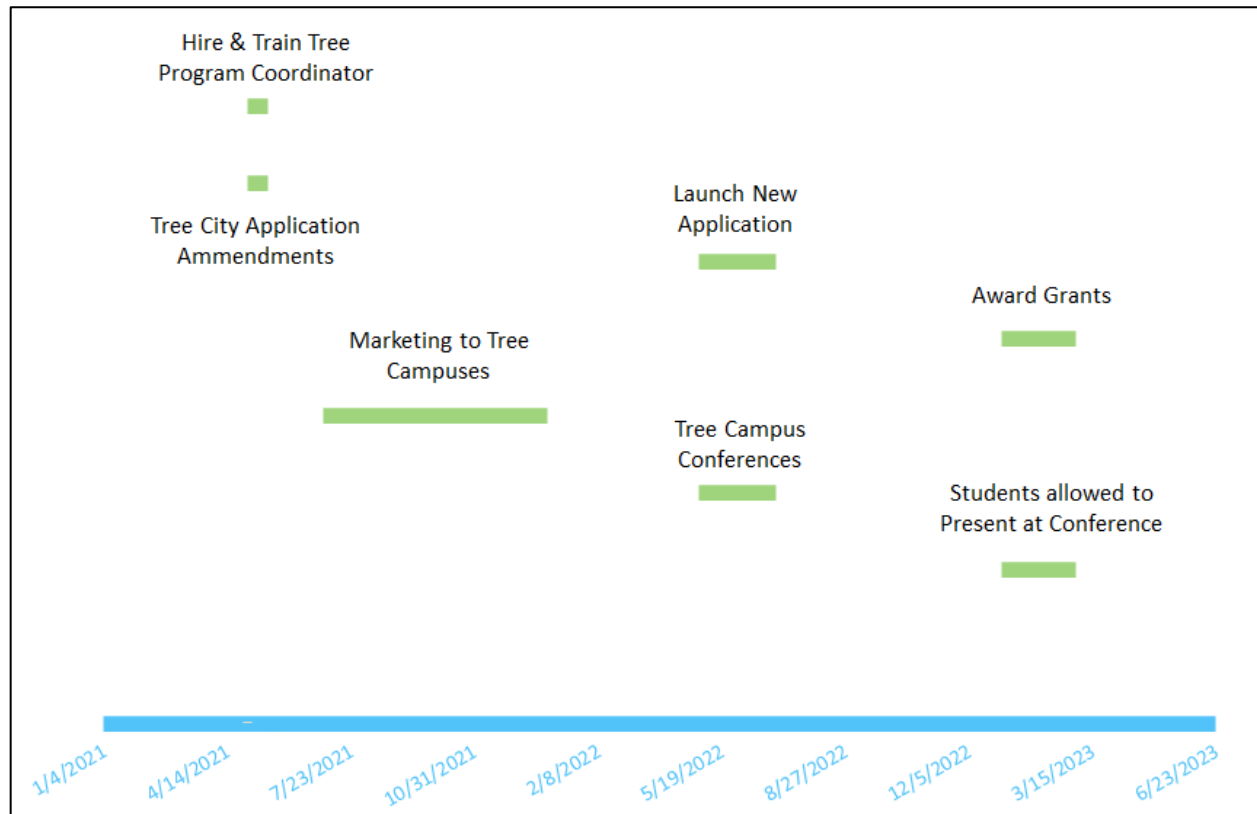
Figure 1

Figure 2

Figure 1

Figure 3: Total Costs

Maximum Estimate of Total Cost		
Tree Campus Higher Education: Cost Analysis		
Marketing Materials	$	3,000.00
Current Employee Time on New Projects	$	20,400.00
Waiving PCF Registration	$	3,600.00
Subtotal	$	**27,000.00**
Tree City: Cost Analysis		
Marketing Materials	$	2,500.00
Subtotal	$	**2,500.00**
Joint Implementation: Cost Analysis		
New Hire Salary	$	38,000.00
New Hire Benefits	$	8,000.00
Subtotal	$	**46,000.00**
Total Cost	$	**75,500.00**

Figure 4: Total Impacts

Direct Impact		
Tree City USA	Year 1	Year 3
Trees Planted	333	667
Dollars Granted	$ 50,000	$ 100,000
Tree Campus	Year 1	Year 3
Campuses Reached	100	200
Tree Planters Engaged	400	800

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