



INNOVATIVE ALABAMA – A REPORT ON OUTDOOR RECREATIONAL OPPORTUNITIES IN THE STATE

Freshwater Land Trust was extremely excited to read **Innovative Alabama**, a report by the Hoover Institution at Stanford University that was prepared for the Alabama Innovation Commission and released on October 19, 2021.

The report has six chapters, all of which address critical economic development issues in Alabama. Conservation, trail development, and quality outdoor recreational access opportunities, which are the heart of Freshwater Land Trust's mission, are featured prominently. The importance of green infrastructure is the focus of the second chapter, **If You Build it, They Will Come: High-Skill Workers and Alabama's Outdoor Recreation Infrastructure**. We are proud that our public access and Red Rock Trail System efforts are featured in this publication, along with the work of many of our partners in Central Alabama, and we would like to share this information with you.

If you would like to read the entire 154-page report, it can be found at this link:

<https://www.hoover.org/research/innovative-alabama>

If you would like to listen to an interview with Dr. Stephen Haber, a contributor to the report and co-author of **If You Build It, They Will Come**, please follow this link:

<https://www.hoover.org/research/matters-policy-politics-sweet-home-alabama>

Freshwater Land Trust would like to share excerpts from the report that directly address the mission and work of our organization, so we have created this document for your review. If you would like to take a quick first look, text that discusses trail development and recreational access to high-quality outdoor spaces and opportunities is highlighted in blue. We have emboldened in red direct references to Freshwater Land Trust and the Red Rock Trail System.

We hope you find this report both exciting and challenging. Alabama is rich in resources, and we hope this report spurs further economic development and concern for the improvement of quality of life for all who reside in our great and beautiful state.

Sincerely,

Rusha Smith
Executive Director
Freshwater Land Trust

A REPORT BY THE HOOVER INSTITUTION

INNOVATIVE ALABAMA

Prepared for the Alabama Innovation Commission



HOOVER-ALABAMA INNOVATION INITIATIVE

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Foreword

CONDOLEEZZA RICE

Throughout 2020, Alabama, like most states, struggled to adapt its technology infrastructure to the global pandemic that forced students, workers, and the government into virtual learning and working environments. This dramatic shift highlighted the critical need for technology modernization and innovation at the state and local levels, particularly in education, and underscored the importance of public-private partnerships in developing technology solutions to make our communities more resilient.

This report is the result of a unique partnership between Stanford University's Hoover Institution and the Alabama Innovation Commission. The Alabama Innovation Commission, known as "Innovate Alabama," was created to "examine policies to increase entrepreneurship, spur innovation, and enhance technology accelerators." The commission aims to increase Alabama's competitiveness in the technology sector and educate a twenty-first-century workforce. Hoover Institution scholars contributed to these efforts through data-driven research that enhanced and informed the policy-making efforts of the commission. Together, the Hoover Institution and Innovate Alabama have focused on essential infrastructure upon which technology innovation depends—internet connectivity, internet literacy, access to technology, good governance, and a legal and regulatory environment in which entrepreneurship can thrive.

Since becoming the director of the Hoover Institution, I have emphasized the issues facing state and local government and challenged us to address them as we seek to improve the human condition, foster innovation, and promote initiative and ingenuity. I am proud of the accomplishments of this collaboration and believe that together we can continue to foster research-driven policies that provide better outcomes for our children, our communities, and Alabama's technology innovation sector.



that universities use these programs to connect students with successful entrepreneurs, thus improving entrepreneurial quality and impact.

Finally, Rauh, Millar, and Kearney stress the need to invest in amenities that promote strong quality of life in cities and areas surrounding universities, to create an environment in which potential faculty and alumni entrepreneurs will remain and locate their innovative activities.

Outdoor Recreation Infrastructure

In chapter 2, "If You Build It, They Will Come: High-Skill Workers and Alabama's Outdoor Recreation Infrastructure," Alexander Galetovic, Stephen Haber, Jordan Horrillo, and Isabel Lopez develop the idea of quality of life further by arguing that a crucial component to establishing an innovation ecosystem within a state is retaining and attracting human capital. They show that Alabama is exceptionally well endowed with a vast array of natural assets that can be leveraged to expand its outdoor recreation industry, enhancing the state's attractiveness for high-skilled individuals, as well as yielding substantial returns for both rural and urban communities.

Galetovic, Haber, Horrillo, and Lopez also show, however, that Alabama has not invested in its outdoor recreation infrastructure at the same scale as neighboring states. To convert its endowments into assets, the state should ramp up spending on outdoor recreation infrastructure. Funding may come from combining private philanthropy, state funds, federal funds, and revenues from user fees. Because projects will generate externalities and incremental economic activity, over time they will also generate higher tax revenues for the state.

The primary recommendation of Galetovic, Haber, Horrillo, and Lopez is the creation of a joint commission for outdoor recreation infrastructure, named by the governor, that includes broad representation across the public, private, and nonprofit sectors to expand the supply of outdoor infrastructure throughout the state. The joint commission is not a replacement for any state agency, higher education center, nonprofit organization, or private initiative. Quite the contrary, its purpose is to reinforce them. The joint commission might include: the commissioner of the Alabama Department of Conservation and Natural Resources; the director (or a program director) of the University of Alabama Center for Economic Development; the leaders of nonprofit organizations with long-standing interests in promoting outdoor recreation and conservation, or with interests in promoting an innovative Alabama economy, such as the **Freshwater Land Trust**, Alabama Audubon, the Nature Conservancy, Ducks Unlimited, the Alabama Trails Foundation, and the Economic Development Partnership of Alabama; the mayors of three or four cities; a number of outdoor recreation entrepreneurs operating small-scale firms; and representatives from Alabama-based firms and foundations with demonstrated philanthropic track records.

Since 1990, Nashville has growth at -3 percent year-over-year (YoY).¹⁸ Today, greater Nashville is home to 1.96 million people, generates \$140 billion in gross domestic product, and has extremely competitive income and employment numbers (\$64,000 median household income paired with 2.6 percent unemployment pre-COVID). Countless larger technology companies, small entrepreneurs, and investors have targeted Nashville for relocation.

Yet, in 1990, the population of Nashville was 577,000, while the population of Birmingham was 623,000, and both had been experiencing 1-2 percent YoY growth. Nashville's trajectory separated itself from Birmingham and other southern cities around this time through a confluence of events. For one, the city was able to obtain two major professional sports teams—the Tennessee Titans and the Nashville Predators. Couple these changes in entertainment with effective tax policy (i.e., low taxation only on income from interest and dividends), and the city thrived. A clear success that resulted from these changes was the United Auto Workers' decision to remain in Nashville without any guaranteed incentives due to the fact that union members wanted to continue living in Nashville because of the sports teams the city had secured a year earlier.

A review of the broader literature largely supports Nashville's approach to taxation and quality of life. According to Richard Florida, areas that are energetic and vibrant are much more attractive to highly educated, talented people.¹⁹ These characteristics are at such a premium that these individuals are willing to spend more money on housing and general living expenses to ensure that they acquire this standard of living. Further, he concludes that attracting and retaining a highly skilled talent pool is a key intermediate variable in ultimately attracting high-technology industries and generating higher regional incomes.

These results are largely consistent with a wider body of literature surrounding regional development that includes the work of Jane Jacobs and Robert E. Lucas Jr., the empirical findings of Edward L. Glaeser, and the writings of others.²⁰ These writers suggest that talent is *the* primary factor in jump-starting regional development. They further suggest that talent is not necessarily a geographical given but rather a consequence of certain geographical conditions and local initiatives. Therefore, policy makers should focus their attention on instituting policies that foster environments that attract such talent.

Recommendations and Ideas for Implementation

Having reviewed the ideas and findings from the stakeholders as well as assessing the current standing of Alabama universities, this report presents the following recommendations for Alabama universities in fostering an innovative ecosystem within Alabama. The recommendations are as follows:

Investments in Entertainment and Quality of Life

According to the stakeholders interviewed, a key area to consider when making Alabama a sought destination is investment in entertainment, restaurants, and other such quality-of-life-focused areas. This perspective is backed by recent research. The American Institute for Economic Research (AIER) shows millennials do not just move for a job. Instead, around 70 percent of young college graduates decide where to relocate based on quality-of-life factors such as a robust restaurant scene and good mass transit.²¹ These survey data are further bolstered by the wider aforementioned academic literature, which suggests that culture is a necessary condition in fostering a growing innovative tech sector.

With this in mind, cities in Alabama should emphasize and develop their appeal as a cultural destination for tourists and residents alike. We highlight three specific endeavors that Alabama should consider in attracting talent:

First, Alabama could consider hosting or supporting a milestone event. For example, Austin, Texas, attributes much of its growth and reputation as a thriving tech city to South by Southwest (SXSW) and Austin City Limits (ACL). The city provides incentives such as free real estate and free support services that allow the event to be successful. In turn, SXSW in particular has allowed Austin to make a name for itself as a knowledge center. Together, SXSW and ACL bring those from outside Texas into the state, to see and experience what it might be like to reside there. Alabama could benefit from bringing people into the state through a cultural event, as it would allow the state to rebrand and show off its thriving culture and Birmingham metropolis. The Economic Development Partnership of Alabama's Innovation and Entrepreneurship conference would be a great place to launch a milestone event.

Second, Alabama should work to attract arts and entertainment to the state. As we mentioned earlier, Nashville secured a GM manufacturing plant, for free-without offering any incentives-purely because the United Auto Workers intervened. Its members wanted to live in Nashville because of the sports teams it had secured in years prior. For Alabama, arts and culture could similarly be a major professional sports team, a musical identity, or even a historical attraction given its rich civil rights history.

Last, Alabama should invest in hallmark infrastructure. Atlanta's beltline, much like the iconic central or golden gate parks, serves as passive space for city dwellers to think, wander, and generally improve their quality of life. Building out infrastructure in the big cities will similarly attract people to the city and inspire the freedom to innovate.²²

In sum, Alabama has the potential to benefit from investments and initiatives focused on enhancing quality of life outside the workplace. Therefore, we strongly recommend that



2. If You Build It, They Will Come

HIGH-SKILL WORKERS AND ALABAMA'S OUTDOOR RECREATION INFRASTRUCTURE

ALEXANDER GALETOVIC, STEPHEN HABER, JORDAN HORRILLO, AND ISABEL LOPEZ

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EXECUTIVE SUMMARY

A crucial component of establishing an innovation ecosystem within a state is attracting and retaining human capital. Alabama is exceptionally endowed with a vast array of natural assets that can be leveraged to expand its outdoor recreation industry, enhancing the state's attractiveness for high-skill individuals and new tourists, as well as yielding substantial returns for both rural and urban communities. Currently, many natural assets remain underdeveloped within Alabama, holding the state back from realizing its full potential to draw high-skill workers and to establish itself as an outdoor recreation powerhouse within the southeastern region of the United States.

To develop these natural assets, Alabama needs to ramp up spending on its outdoor recreation infrastructure. Funding may come from combining private philanthropy, state funds, federal funds, and revenue from user fees on outdoor recreation infrastructure. Because projects will generate externalities and incremental economic activity, projects will, over time, also generate a higher tax revenue for the state and contribute to their own funding.

This chapter's primary recommendation is the creation of a joint commission to expand the supply of outdoor infrastructure throughout the state. First, it would draw on Alabama's Statewide Comprehensive Outdoor Recreation Plan and input from entrepreneurs, municipalities, and other stakeholders to identify projects that would generate significant positive externalities for the state. Second, the joint commission would be a vehicle through which funding sources, beyond those already in place, would be identified and pursued. Third, the joint commission would work with state agencies, municipalities, nonprofit organizations, and the private sector to plan outdoor recreation infrastructure projects, select developers, distribute funds, and ensure the delivery of projects and services.

Introduction

Innovation is the creative act of seeing a demand curve for a product that may not yet exist, and then putting together the components necessary to bring that product or service to



market. Innovation is also the creative act of seeing how to produce an existing product or service more efficiently, and then putting together the components necessary such that the price falls and the market expands.

Successful innovations generate what economists call Ricardian rents—they can produce more revenue per dollar of input than the least productive producer in that same market. A quintessential example is the iPhone; Apple is able to sell iPhones at about three times the price charged by other smartphone manufacturers, while its production costs are only twice as high. Apple can obtain more revenue per dollar of input because consumers value iPhones more than they value other smartphones.

The Ricardian rents from innovation are captured not just by firms in the form of higher profits. Some of the rents are captured by the firm's employees in the form of higher wages than they would have earned otherwise. Some of the rents are captured by the government in the form of a higher tax revenue than it would have received otherwise. Innovation, and the Ricardian rents it generates are, in short, the basis for a prosperous society.

The Challenge of Creating an Innovative Economy

If innovation is such a good thing, then why don't we see it happening everywhere? The reason is that turning an idea into a commercial product that consumers value requires the recruitment and retention of people with a wide variety of specialized knowledge and skill sets. Some of those people know how to invent new technologies. Others know how to combine technologies that already exist in novel ways. Still others know how to secure financing, write contracts, navigate regulatory mazes, build prototypes, set up manufacturing facilities, and market consumer products.

Innovation therefore happens in environments in which there is a pool of people who have invested in developing specialized knowledge and skill sets that are complementary to one another. Such a pool of people can be home grown, but if one is trying to jump-start an innovative economy, at least some of those people must be recruited from outside.

Recruiting High-Skill Workers and Sustaining Communities

Persuading people with scarce skills to move thousands of miles to new homes and new communities is not an event; it is a process. It often starts with short visits that plant a seed in their minds. Those seeds germinate into an idea, and in time they flower into the decision to relocate.

Those crucial, short initial visits often occur because of tourism; and when it comes to people who have invested in the kinds of specialized human capital that is necessary

to launch innovative firms in the twenty-first century, that tourism tends to be focused on outdoor recreation.¹ Whitewater rafting, kayaking, canoeing, hiking, backpacking, bird-watching, skiing, mountain and road biking, rock climbing, and the like, tend to draw high-skill workers and entrepreneurs and then reveal to them the other benefits that will come when they relocate, such as lower housing costs, shorter commutes, and friendlier communities. It would be difficult, in fact, to disentangle the recent high-tech booms taking place in Salt Lake City, Utah; Bend, Oregon; and Boulder, Colorado, from the opportunities they provide for outdoor recreation.

Outdoor recreation is not, however, simply a way to recruit high-skill workers; it is also a way to share the Ricardian rents generated by innovative industries broadly. When an employee of an innovative firm takes a walk on an urban trail and stops along the way for coffee or lunch, she is sharing some of those rents with the restaurant and its employees. When she takes a weekend trip to go rock climbing, she is sharing some of those rents with local outfitters, guides, gas stations, grocery stores, and hotels. The scale of those outdoor recreation expenditures is staggering; across the United States in 2019 value added from outdoor recreation was \$460 billion, roughly 2 percent of the US GDP.² In short, outdoor recreation, whether urban or rural, helps foster an environment that is socially and politically sustainable.

Permit us to illustrate the idea of shared prosperity through outdoor recreation by pointing to the examples of Placer and El Dorado Counties in California, which stretch from the foothills of the Sierra Nevada all the way to Lake Tahoe, at the border with the state of Nevada. Placer and El Dorado Counties have the seventh- and twelfth-highest median household incomes in the state—at \$97,688 and \$86,202, respectively—but neither contains a high-tech hub or a manufacturing facility.³ Their westernmost towns are suburbs of the state capital; but as one heads east, into the hills, they become highly rural. Those rural areas boast the most intensively kayaked and rafted whitewater rivers in the United States, seven major ski resorts, and some of the most popular hiking and backpacking trails in the western United States. Those outdoor recreation attractions sustain countless numbers of small and midsize business-outfitters, bike and ski shops, restaurants and cafes, hotels, gas stations, roadside fruit stands and pie shops, and the like.

To give a sense of what this looks like on the ground, consider the town of Coloma, located on the banks of the south fork of the American River in El Dorado County. Coloma was founded as a gold rush town in the 1850s, but when the gold played out, so did the town; its civic buildings were abandoned and left to decay. In the 1970s, the local economy began a comeback based on the emerging sport of whitewater kayaking and rafting. Fifty years later the most important businesses continue to be tied to the town's proximity to whitewater, such as guide services, equipment rentals, and campgrounds. As whitewater tourism grew, however, other tourism-focused businesses began to emerge. Among the most



important of these are wineries, which began to spring up in the 1990s, and which draw Silicon Valley tourists more interested in granite tasting counters than in Class IV rapids. All of this happened, we hasten to add, without disturbing the social fabric of the town; as of 2019 Coloma still had only 487 inhabitants, and the average commute time to work was eighteen minutes. The median household income was, however, \$125,521 and the poverty rate was less than 1 percent.⁴

Hypothesis: Alabama's Natural Endowment Is an Undercapitalized Asset

Alabama has natural endowments-rivers, lakes, mountains, forests, coastline, flora and fauna-that give it tremendous potential to draw and retain high-skill workers and firms at the frontiers of their industries and to then share the rents from those industries broadly across the state. Some of those endowments have been developed by passionate and dedicated Alabamians working through private enterprises, nonprofits, joint ventures, local governments, and state agencies. They have, however, been constrained by the resources at their disposal.

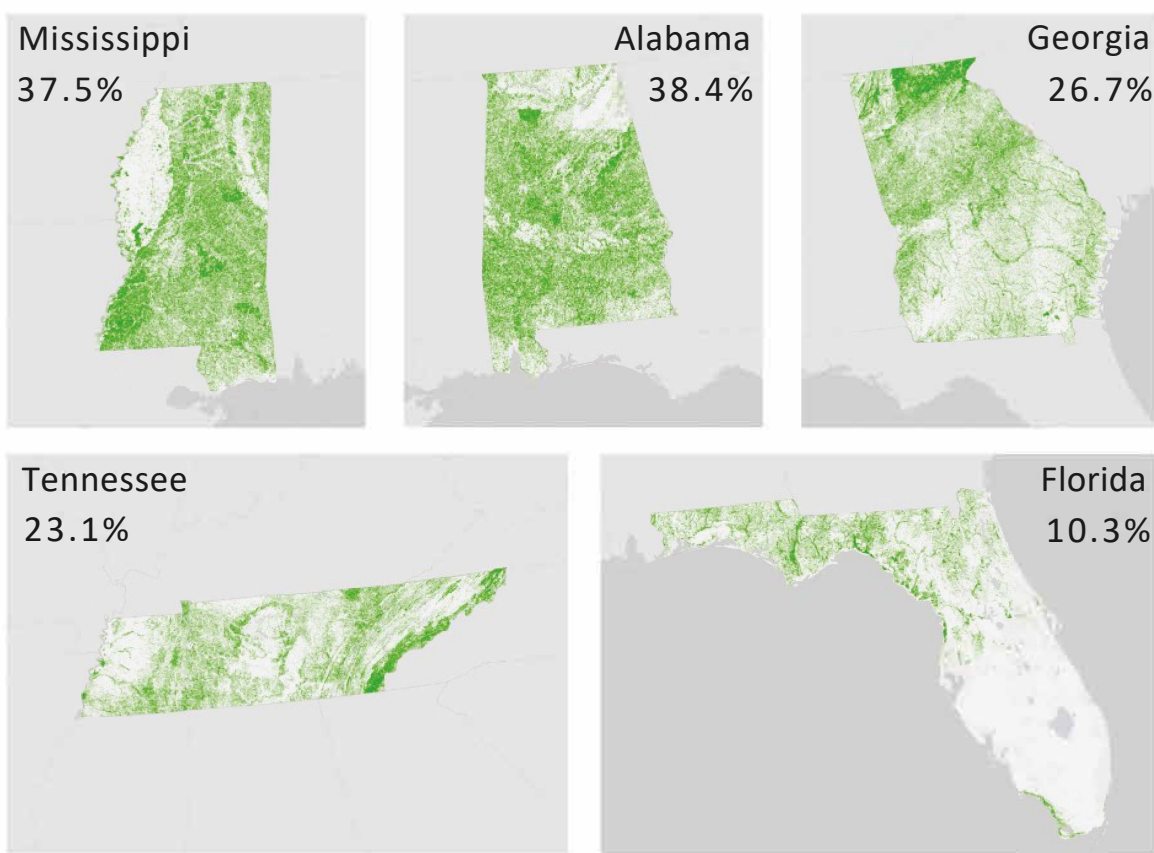
A substantial, coordinated, and long-term program of investment in outdoor recreation infrastructure will yield substantial returns to the state. Some of those returns will be direct, in the form of dollars spent by out-of-state tourists. Some of those returns will be indirect, in the form of the ability of the state to recruit and retain a pool of people with the skill sets necessary to generate the innovative firms that produce Ricardian rents. Some of those returns will come in the form of positive externalities for rural areas-demand for outfitters, guide services, hotels, restaurants, and the like, by high-skill workers in innovative industries. And some of those returns will come in the form of positive externalities for urban areas-demand for housing, restaurants, cafes, and the like along new (or expanded) urban walking trails, bikeways, and blueways.

Alabama's Natural Endowment

We do not think it would take lengthy argumentation to make the case that Alabama has a natural endowment well suited to developing a vibrant outdoor recreation economy. Figure 1, which illustrates the forested surfaces of Alabama and its neighboring states, shows that roughly two-fifths of the state is densely forested. This means that Alabama is about 40 percent more forested than Georgia, 60 percent more forested than Tennessee, and close to four times as forested as Florida. Among its neighbors, only Mississippi rivals it.⁵

Figure 2, which illustrates Alabama's surface water (rivers, streams, lakes, and ponds), and that of its neighboring states, shows that Alabama's forests are paired with abundant lakes, ponds, rivers, and streams. Alabama boasts more surface water area per square mile of territory (3.4 percent) than Tennessee (2.2 percent), Mississippi (3.1 percent), and Georgia (3.2 percent). Only Florida (at 18.5 percent) exceeds Alabama.⁶

Figure 1. Forested land in Alabama and its neighboring states



Source: Tree Canopy Cover, National Land Cover Database (NLCD) 2016 Products (ver. 2.0, July 2020): US Geological Survey data release.

Two facts bring these statistics about Alabama's freshwater endowment to life. First, it is possible to canoe the 650 miles from Weiss Lake, in northeastern Alabama, near the border with Georgia, to Mobile Bay on the Gulf of Mexico near the border with Mississippi, with only nine short portages around dams and locks.⁷ Second, Alabama's rivers, lakes, streams, and wetlands are home to more species of aquatic and semiaquatic animals than any other state in the country.⁸ From the point of view of kayakers, canoeists, fishers, hunters, and bird-watchers, Alabama is a wonderland.

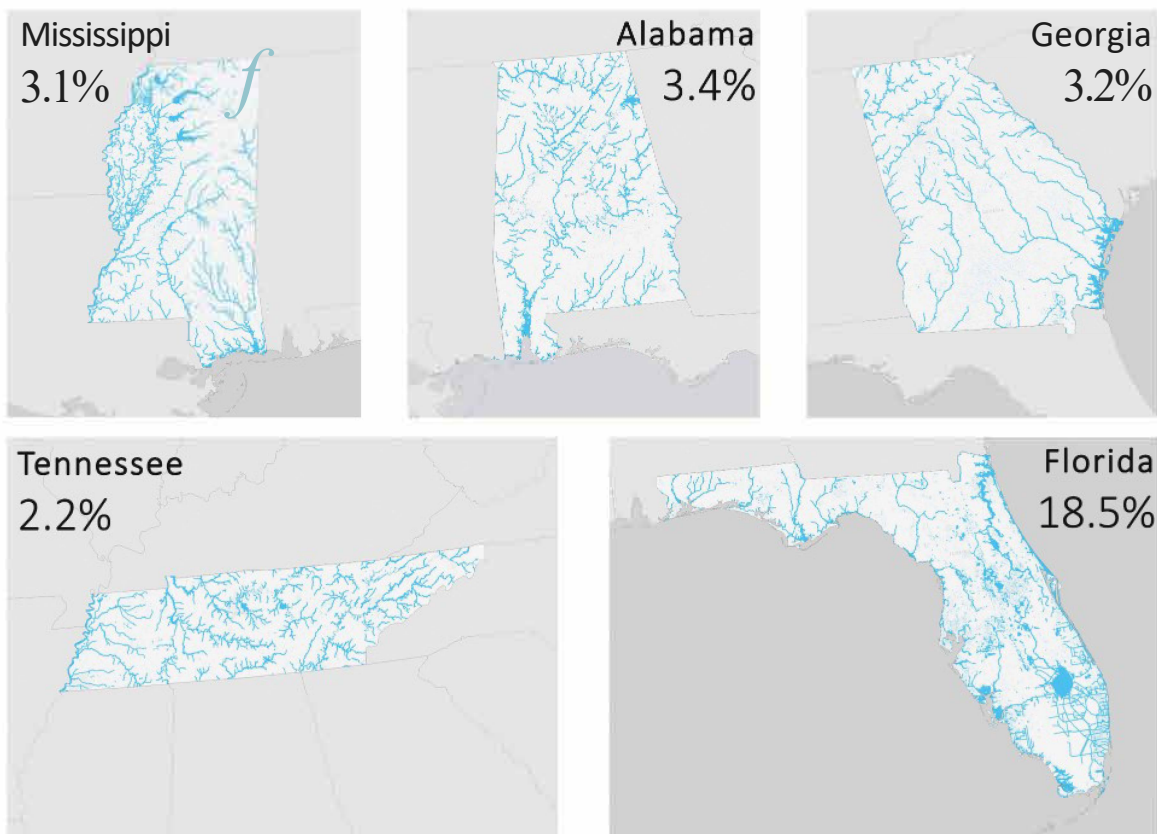
Alabama's Recreation Infrastructure

It is one thing to have a favorable natural endowment, and another to take full advantage of it. The first is given by nature; the second is the result of investments in outdoor recreation infrastructure.

There is no single agreed-upon metric that captures the degree to which a state takes advantage of its natural endowment. A number of different indicators-some of which



Figure 2 Surface water coverage in Alabama and its neighboring states



Sources: US Geological Survey, 2019, National Hydrography Dataset, ver. USGS National Hydrography Dataset Best Resolution for Hydrologic Unit 4, 2001 (October 2, 2019).

focus on outcomes and some of which focus on inputs-all point, however, to the same conclusion: Alabama has not taken full advantage of its endowment.

One straightforward way to measure the outcome of Alabama's outdoor recreation infrastructure is to listen to what Alabamians themselves say. A survey conducted for Alabama's 2013-18 Statewide Comprehensive Outdoor Recreation Plan found that 93 percent of Alabama residents stated that outdoor recreation was important or very important to them. Eighty-four percent of Alabamians stated that recreational trails were important or very important to them. Only 56 percent of the respondents, however, said they were satisfied with outdoor recreation facilities and trails in Alabama. Perhaps most pointedly, 47 percent of respondents said they traveled outside the state to participate in an outdoor recreation or trail-related activity.⁹ Importantly, the survey also revealed that they tended to visit neighboring states whose natural endowments are not unlike those of Alabama: Tennessee, Georgia, and Florida.¹⁰

Another way to measure the outcomes of investments in outdoor recreation infrastructure is to look at the revenue it generates. As figure 3 shows, there is a substantial difference

Georgia twice as much, Tennessee three times as much, and Florida close to five times as much.

These differences in publicly accessible lands translate into fewer trails for hiking, backpacking, bird-watching, mountain biking, and the like. The AllTrails app, which is widely used by hikers and backpackers, shows the number of trails constructed and marked within a state. While the raster image files that would allow us to measure the length of each trail are proprietary to AllTrails, it is reasonable to believe that there are no systematic differences in average trail lengths across states. The AllTrails data suggests that Alabama lags in trail development, with 721 trails registered, compared with Georgia's 1,301, Tennessee's 1,529, and Florida's 1,899. Alabama surpasses only Mississippi, which has 185 trails listed.¹⁶

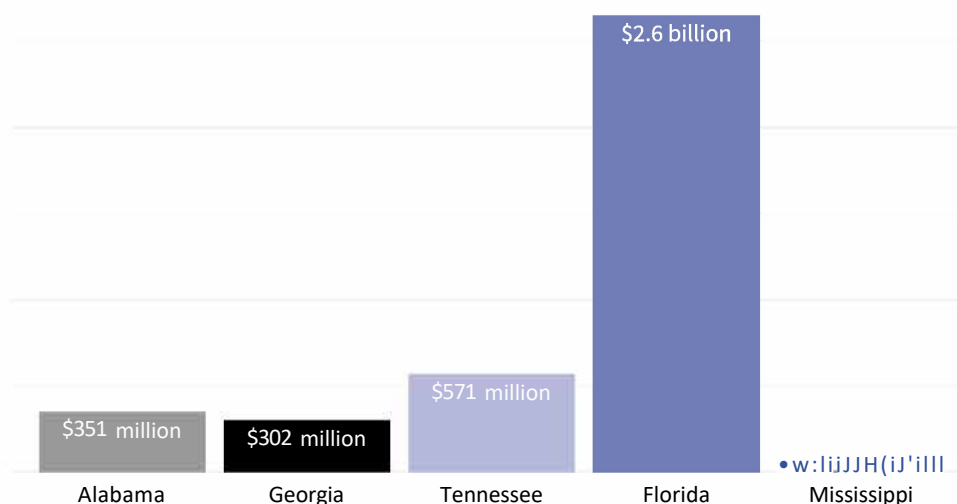
The Funding Gap

One inference that may be drawn from this data is that Alabama outdoor recreation is underfunded relative to the task of enlarging publicly accessible lands, trails, and other outdoor infrastructure. Alabamians seeking to develop trails and other outdoor infrastructure in their local communities leverage federal Recreational Trails Program and Land and Water Conservation Fund grants. These federal programs provide limited funds, however. The apportionments for Alabama in FY 2020 were only \$1.7 million for the Recreational Trails Program and \$3.4 million for the Land and Water Conservation Fund.¹⁷ The funds allocated through these programs are not sufficient, nor are they necessarily meant, to fund outdoor recreation, or even trail development alone, in any state. They are meant as adjuncts to funding from states or private philanthropy.

In Alabama, the agency charged with the development and maintenance of state parks and other state-owned lands, conservation efforts, environmental protection, and wildlife-related law enforcement activities is the Alabama Department of Conservation and Natural Resources (ADCNR). The agency's 2021 budget, compared with that of its counterparts in neighboring states, can be seen in figure 10.¹⁸ Alabama's budget (\$351.4 million) exceeds Mississippi's (\$98.7 million), is of the same order as Georgia's (\$301.9 million), but is smaller than Tennessee's (\$570.9 million), and Florida's (\$2,647.7 million).

Importantly, ADCNR receives almost no funds from the state budget. For FY 2020-21 ADCNR's total budgeted expenditures added up to \$361.9 million.¹⁹ These were funded from three sources: The most, \$168.2 million, was from federal funds, primarily from the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE Act).²⁰ Some \$88.3 million was generated by ADCNR itself, mainly from hunting and fishing licenses (\$23.1 million) and park visitor fees (\$43.9 million). And \$67 million came from various sources, but mainly the federal Gulf of Mexico Energy Security Act (GOMESA, which provided \$26 million)²¹ and reimbursements from the

Figure 10. Budgets for state fish and wildlife management agencies, 2021



Sources: State of Alabama, Executive Budget, Fiscal Year 2021, C-12; Georgia Governor's Office of Budget and Planning, HB 80-AFY 2021 Appropriations Bill; State of Tennessee, Department of Finance and Administration, The Budget, Fiscal Year 2020-2021, B-293; Florida Senate, SB 2500 (appropriations for FY 2021); Mississippi Legislative Budget Office: Statement VI: Total State Budget Recommend for Fiscal Year 2021.

BP oil spill Natural Resource Damage Assessment (\$22.7 million).²² Indeed, three funding sources—the RESTORE Act, GOMESA, and the BP oil spill assessment—add up to more than half of the department's 2020-21 funding. Less than \$6 million of ADCNR's funding comes from state excises on cigarettes and fuel. Figure 11 summarizes the data, showing the major categories of the FY 2021 budget by funding source.

We validate the use of budgeted funds, rather than actual receipts, by examining the actual receipts for FY 2019 and 2020. As can be seen in figure 12, the actual data shows that ADCNR revenue makes up a larger percentage of spending than federal funds do, but there is little difference in the percentage of funds from state taxes.

When all the different metrics are taken together, a consistent picture emerges: there is plentiful room for investment and potential for growth in Alabama's outdoor recreation industry. One can imagine a future in which the state's impressive natural endowment is more fully deployed as an asset to attract and retain high-skill workers who will then share the rents from their innovative industries with Alabama's rural areas.

Building from Strength: The Achievements of Passionate Alabamians

If we have learned one thing from our visits to Alabama, it is that the state is blessed with a rare asset: decent, hardworking, public-spirited people. Some of them lead state agencies,



some are researchers at universities, others work for nonprofit organizations, and yet others are in the private sector. The programs and initiatives they have launched exemplify the types of investments that can be made to capitalize on the state's natural endowments.

If we have learned a second thing from our visits to Alabama, it is that these passionate people are working with very modest budgets. A substantial, coordinated, and long-term program of investment that draws on the expertise and passion of the Alabamians already doing great things for their state-and that gives them a substantial voice in how those funds are spent-will yield substantial returns.

It is beyond the scope of this report to provide an assessment of every outdoor recreation program in the state. We therefore describe six programs to show how different public-private sector combinations, using a variety of governance structures, are investing in outdoor recreation infrastructure.

The Forever Wild Land Trust

Among Alabama's most far-reaching outdoor recreation projects is the Forever Wild Land Trust (FWLT), which is administered by ADCNR. Most of Alabama's state parks were created in the 1940s. In order to provide greater habitat conservation and public recreational opportunities, the FWLT was created in 1992. Its mission to create state-owned nature preserves and recreation areas is particularly important considering that since it was established, 143,000 acres of lands leased from private owners for the purpose of public hunting have been withdrawn from ADCNR's wildlife management areas. The only funding method to replace those large tracts, or to establish state parklands beyond those created in the middle of the last century, is the FWLT. These acquisitions tend to be strategic; they often allow sections of parks or wildlife management areas to be connected to one another.

It appears that considerable thought was devoted to the FWLT's governance structure when it was set up. The constitutional amendment that established the FWLT specifically states that land can be purchased only from willing sellers; no FWLT land can be acquired through state condemnation powers. Individuals nominate tracts of land for purchase, which the FWLT board of trustees may then offer to purchase at the appraised fair market value. The FWLT board is required to obtain at least two appraisals prior to acquiring a nominated tract, and if there is more than a 10 percent difference between the two appraisals, a third reconciliation appraisal is required. An affirmative vote of at least nine of the fifteen FWLT board members is required to authorize the acquisition of a nominated tract. The FWLT board is drawn from Alabama's universities and the private sector; public officials serve in an ex officio capacity.²³

Funding for the FWLT is generated by interest earned from offshore natural gas royalties deposited into the Alabama Trust Fund. The FWLT receives 10 percent of the distributed



to lead the creation of a master plan for engaging community members, park visitors, and other stakeholders. The resulting master plan put forward a vision for the park rooted in the idea that sustaining the health of the park's 6,150 acres and seven ecosystems was directly related to the economic vitality of the larger region. It also embraced the notion that a focus on sustainability does not hinder economic objectives.²⁸ The development and construction work was then carried out by Skanska USA, the US branch of a major Swedish firm that specializes in sustainable large-scale construction projects. The 350-room lodge, as well as some other elements of the park's infrastructure, such as its restaurant, cabins, and cottages, is operated by a private vendor, Valor Hospitality Partners. The rest of the park's infrastructure, including its 16 miles of trails, a 496-site RV campground, and beach access sites, is managed by ADCNR.

The six-year project produced a revitalized Gulf State Park that serves as a benchmark for environmental sustainability. For example, the rebuilt lodge was relocated about two hundred yards behind the original structure to reduce the overall impact to the coastline, with native plant species used to restore dunes and the natural habitat. The Lodge at Gulf State Park is also the first-ever fortified commercial hurricane structure in the United States.

The Red Rock Trail System

Nonprofit organizations play key roles in the development of Alabama's outdoor recreation infrastructure. One example is the **Red Rock Trail System**, whose master plan was developed by the **Freshwater Land Trust**, a nonprofit that conserves lands and builds trails in central Alabama, in partnership with the Jefferson County Health Action Partnership, a community-based organization supported by the Community Foundation of Greater Birmingham, the United Way of Central Alabama, and the Jefferson County Department of Health.

The goal of the **Red Rock Trail System** is a regional greenway in Jefferson County that preserves green spaces while enabling active, alternative methods of transportation for county residents. At its simplest, the mission is to construct 750 miles of interconnected multiuse trails, parks, bike lanes, and sidewalks that will connect the 9,000-acre Red Mountain Park in the Oxmoor Valley to Ruffner Mountain preserve in eastern Birmingham.²⁹ As of December 2020, 125 miles of trails toward this goal had been completed.³⁰ At a more complex level, the mission of the system is to encourage healthy lifestyles and improve health outcomes in Jefferson County, enhance access to the county's natural resources, and cultivate a sense of community within the area.

Another goal of the **Red Rock Trail System** is economic development within Jefferson County. Trail building generates construction jobs, but perhaps more importantly, trails generate positive externalities by raising property values, increasing tourism, and providing a focal

point for new business development.³¹ The Rotary Trail, which is a crucial connector in central Birmingham for the larger Red Rock System, and which opened to the public in 2016, is an example. The half-mile-long trail, which takes its name from the fact that the initial tranche of \$2.5 million in funding came from the Birmingham charter of the Rotary Club, converted a vacant railroad right-of-way in a blighted part of the city into a landscaped walking/running/biking pathway.³² News reports indicate that it has spurred the development of restaurants, bars, cafes, and condos next to and around it, thereby helping to revitalize the area.³³

With more than 600 miles of trails yet to be constructed, significant investment is needed to complete the **Red Rock Trail System**. The plan proposes 250 miles of greenways as one of its central components, with average construction costs at \$500,000 per mile.³⁴

The Montgomery Whitewater Park

Municipalities also play important roles in the development of Alabama's outdoor recreation infrastructure. There are many examples, which include the development of waterways and trails, but perhaps the most ambitious such municipal effort is the Montgomery Whitewater Park. Scheduled to open in summer 2023, the 120-acre complex is envisioned as a recirculating whitewater rafting, kayaking, and canoeing facility constructed within walking distance of downtown Montgomery. The project is also envisioned to include climbing areas, zip lines, rope courses, and mountain biking trails.

The conception of the park is that two large markets will support its operating costs, while the park generates positive externalities for business development and employment growth in Montgomery County. The first of those markets is composed of families traveling on the I-65 corridor, which is a major cross-country north-south route, connecting Chicago to Mobile, Alabama. Along the way, it passes through other major cities such as Indianapolis, Louisville, Nashville, Huntsville, and Birmingham. The park's location, just off the I-65, is envisioned as an attraction to families from those cities transiting to and from the vacation destinations on Alabama's Gulf Coast. The second of those major markets is envisioned as the roughly seven thousand military, civilian, and government contractors, plus their families, stationed at nearby Maxwell-Gunter Air Force Base.

The land for the project is being donated by the City of Montgomery, which acquired the land from private landowners. Seventy percent of the development and construction costs of \$50 million is being funded by Montgomery County, which has created a Community Cooperative District, composed of community leaders, to oversee the project. Most of that contribution will be financed from issuance of revenue bonds, for which the county is responsible. The state has committed an additional \$5 million. The Poarch Band of Creek Indians, which has significant hotel and gambling operations in the Montgomery area



and in south Alabama, is also an investor in the project. Groundbreaking took place in the summer of 2021. The park is expected to open during the summer of 2023.³⁵

Connecting with Birds and Nature Tours

One of our central points is that outdoor recreation creates opportunities for private initiative, including small businesses in rural areas. An example is Connecting with Birds and Nature Tours. As is often the case with small business enterprises in rural areas, Connecting with Birds and Nature Tours is an adjunct to an agricultural enterprise, in this case a 200-acre Black Angus farm operated by its third-generation owner, Christopher Joe, who started the business in 2018 to diversify the farm's sources of revenue.

Connecting with Birds and Nature Tours takes advantage of two facts: Alabama's forests, ponds, marshes, and lakes provide critical habitat for more than four hundred species of birds; and wildlife observation has become an outdoor recreation industry in and of itself. Connecting with Birds and Nature Tours has responded to this market opportunity by offering birding tours on Joe's Farm, either on a hayride trailer or by hiking its six miles of trails, to view wood stork, American white pelicans, white ibis, swallow-tailed kite, scissor-tailed flycatcher, bald eagles, great blue heron, great egret, osprey, Mississippi kite, and loggerhead shrike. It also crafts school field trips, which include lessons in tree identification, birdhouse building, and bird-watching. It generates income by charging a day-use fee.³⁶

The University of Alabama Center for Economic Development/Cahaba Blueway

The UACED was founded in 1989 and serves as an economic outreach unit to access the school's resources, expertise, and existing university centers and programs to provide technical, grant-writing, planning, project management, and leadership assistance to communities, agencies, and organizations seeking to develop Alabama's economy.³⁷

We have already had occasion to mention the UACED in connection with the rehabilitation of Gulf State Park, but the center plays an important role in many other outdoor recreation infrastructure projects. Indeed, it has been tasked with preparing the next Statewide Comprehensive Outdoor Recreation Plan (SCORP), which Alabama must submit every five years to be eligible for federal funding from the Land and Water Conservation Fund. We focus in this report on its role in developing the Cahaba River Blueway, but stress that this is just one of its initiatives.

The Cahaba Blueway is one of the major projects of the UACED. The Cahaba is the longest substantially free-flowing river in Alabama and is among the most biologically diverse rivers in the United States. It also connects some of the state's wealthiest communities around Birmingham with some of its most economically undeveloped communities farther

downstream. Although it is actively fished, it is only marginally developed for public recreation. The goal of the Cahaba Blueway initiative is to make the modest investments in infrastructure necessary for easy river access for kayaking, canoeing, paddle boarding, fishing, and floating, and to then provide marketing expertise, so that the Cahaba River emerges as a destination for recreational tourists. Tourism will, in turn, generate positive externalities for the communities that lie along the river by generating demand for hospitality and retail business, by making those communities more attractive to prospective residents, and by generating demand for better conservation practices that will benefit the entire river ecosystem.³⁸

The Cahaba Blueway initiative involves a partnership with multiple organizations and agencies, many with financial resources that complement the technical expertise provided by the UACED. These actors include the Nature Conservancy, the Cahaba River Society, Cahaba Riverkeeper, the **Freshwater Land Trust**, Blue Cross and Blue Shield of Alabama, Sappi, the Alabama Black Belt Foundation, the City of Helena, the City of Trussville, Shelby County, and the National Park Service's Rivers, Trails, and Conservation Assistance Program. The UACED's role had been to serve as an educator for the leaders of cities and towns along the river, the developer of a brand for the Cahaba Blueway, and the creator of guidelines for standardized signage, as well as guidelines for the design, construction, and operation of river access infrastructure that communities can use. It has also identified Cahaba Blueway access sites that lie within lands that are publicly accessible. Finally, the UACED developed a website, cahabablueway.org, that provides information about how to access and stay safe on the river, as well as connects visitors to local tourism resources, hospitality providers, equipment suppliers, and outfitters.

We note that the UACED accomplishes its many initiatives, which extend beyond providing support for outdoor recreation development projects, with a full-time staff of only seven people.³⁹

A Proposal: Building on Alabama's Existing Organizations and Structures

Alabama has a vast potential to transform its natural endowment into outdoor recreation attractions that will contribute to building a more innovative economy. The state can draw on two additional assets, beyond its natural endowment, to accomplish that goal: its hardworking and passionate citizens; and the experience those individuals have with a variety of governance structures for outdoor recreation initiatives.

There is, in our view, one major challenge: funding. ADCNR, the UACED, nonprofit organizations, municipal governments, and private initiatives have accomplished a great deal, but they operate with very modest budgets. The existing approach—patching together funds from multiple sources over the course of many years, project by project—is unlikely to



yield the kind of sustained investment that would be required to build and market Alabama outdoor recreation at a scale to recruit and retain high-skill workers. One can observe the results of that approach by comparing outdoor recreation outcomes across states, as we do in figures 3 through 7. The state bond issue of \$85 million for state parks and historical sites, if approved by voters as an amendment to the state constitution this fall, would be an important step in renovating and improving existing facilities. It is not, however, an answer to the challenge of transforming Alabama's natural endowment into outdoor recreation attractions that will contribute to building a more innovative economy. Bear in mind that the rehabilitation of Gulf State Park and the reconstruction of its lodge, alone, required \$140 million, and that the estimated cost to complete the **Red Rock Trail System's 250 miles** of greenways, alone, is \$125 million.⁴⁰

Raising and spending funds on a much larger scale than has been done in the past requires a concerted push by the state agencies, university research centers, municipal governments, nonprofit organizations, private initiatives, and the passionate people that lead them. We therefore recommend that the state build on its experience with the Alabama Trails Commission, by creating a Joint Commission for Outdoor Recreation Infrastructure, named by the governor, that includes broad representation across the public, private, and nonprofit sectors.⁴¹

The joint commission is not a replacement for any state agency, higher education center, nonprofit organization, or private initiative. Quite the contrary: its purpose is to reinforce them. The joint commission might, for example, include the commissioner of ADCNR; the director (or a program director) of the UACED; the leaders of nonprofit organizations with long-standing interests in promoting outdoor recreation and conservation, or with interests in promoting an innovative Alabama economy, such as the **Freshwater Land Trust**, Alabama Audubon, the Nature Conservancy, Ducks Unlimited, the Alabama Trails Foundation, and the Economic Development Partnership of Alabama; the mayors of three or four cities; a number of outdoor recreation entrepreneurs operating small-scale firms; and representatives from Alabama-based firms and foundations with demonstrated philanthropic track records.

We believe that broad representation on the proposed Joint Commission for Outdoor Recreation Infrastructure is crucial for three reasons: First, the myriad agencies, university research centers, nonprofits, and private initiatives require a forum that allows them to speak with a single voice, such that their message is concentrated and amplified. This is particularly crucial when it comes to raising funds from private philanthropy. Second, broad representation facilitates synergies across actors. Plainly put, when a group of smart, passionate people are in the same room, ideas, and ways to operationalize them, emerge that would not do so otherwise. Third, broad representation embodies a fundamental practice of good governance; interests must be balanced so that wise decisions are made, funds are stewarded with care, and projects are evaluated critically.

Hoover-Alabama Innovation Initiative

In July 2020, Alabama governor Kay Ivey established the Alabama Innovation Commission (AIC), aimed at building the state's competitiveness in the technology sector, inspiring entrepreneurship, and educating a twenty-first-century workforce. The AIC serves as a platform for innovators to engage policy makers, exchange ideas, and identify policies that promote innovation in the state.

Governor Ivey asked Hoover Institution director Condoleezza Rice, a member of the AIC Advisory Council, if the Institution would lend its expertise on state and local politics to the initiative. Hoover's involvement in the project consists of two components, led by senior fellows Stephen Haber and Joshua Rauh. Haber led a team of Hoover fellows in conducting data-driven research to assess the components—educational, legal, financial, governance, and physical infrastructure—necessary to transform Alabama into an innovation hub. Rauh led Hoover's first Policy Lab, a collaboration between the Hoover Institution, Stanford Graduate School of Business, Stanford Law School, and several of Alabama's leading universities. The Policy Lab constitutes a new model for engaging students in public policy research: teams of Stanford MBA students and undergraduates from Alabama's universities built substantive knowledge and created data sets necessary for the Hoover fellows to write their report to the AIC.

The focus on state and local issues represents a pivot from Hoover's traditional focus on policy making at the federal level. As such, it presents a unique opportunity. One-size-fits-all solutions tend not to work in a nation as diverse as the United States. Hoover's engagement at the state and local levels has increased its potential to impact policy making in a meaningful way, thereby improving the lives of Americans.

For more information about the Hoover-Alabama Innovation Initiative, visit us online at www.hoover.org/research-teams/hoover-alabama-innovation-initiative.



Freshwater Land Trust Selected Press Links

Alabama's multiuse trails lure cyclists, runners for health, recreation, and the outdoors

By Miriam C. Davis, Alabama Living, August 13, 2021

<https://alabamane.wscenter.com/2021/08/13/alabamas-multiuse-trails-lure-cyclists-runners-for-health-recreation-and-the-outdoors/>

Tarrant is now home to Jefferson County's 11th Litter Gitter

Pat Byington 09/20/21

<https://bhamnow.com/2021/09/20/tarrant-is-now-home-to-jefferson-countys-11th-litter-gitter/>

What Is Red Rock Trail System?

By Jeh Jeh Pruitt Published: Jun. 1, 2021

<https://www.wbrc.com/2021/06/01/what-is-red-rock-trail-system/>

Litter Gitter has successful 1st year

by INGRID SCHNADER May 26, 2021

<https://thehomewoodstar.com/news/litter-gitter-has-successful-1st-year/>

Clean water, trails, parks, how Freshwater Land Trust transforms our community

Pat Byington 05/25/2021

https://bhamnow.com/2021/05/25/clean-water-trails-parks-how-freshwater-land-trust-transforms-our-community/?fbclid=IwAR1IDKJAGf9baJzKKGk3H7sfxo6sLZIY3Yw-gq_OP_M240hl4caAsWME75A

New Jones Valley Trail Extension will connect Railroad Park to Avondale by end of 2021

Pat Byington 04/26/21

<https://bhamnow.com/2021/04/26/new-jones-valley-trail-extension-will-connect-railroad-park-to-avondale-by-end-of-2021/>

Freshwater Land Trust Litter Gitter Videos:

<https://vimeo.com/594688131/1131138d47>

Please visit the press archive for Freshwater Land Trust on our website for further information:

<https://freshwaterlandtrust.org/news/press/>

Safeguarding Our Natural World

"Freshwater Land Trust's work affects everyone's life in our community whether people realize it or not. We safeguard our natural world, and, in doing so, we are protecting our drinking water, our threatened and endangered species, and our unique plant life. We create safe and accessible places for people to enjoy outdoor recreational opportunities, and, in doing so, we are connecting our parks and greenways, providing alternative methods of transportation, and improving the mental and physical health of all of our citizens. All of these efforts make our region a more desirable place to live, work, and visit."

~Rusha Smith, Executive Director

What's Next? Are You a Freshwater Fan?



Child holding a Salamander at Wildwood Preserve in Homewood. Photo via Freshwater Land Trust

Want to be a part of a group that will make a lasting impact on everyone's lives and the environment in Birmingham and Central Alabama for the next seven generations?

"FLT has already changed the landscape of the area around us, and there is so much more to come in the next generation."

~Rusha Smith, Freshwater Land Trust Executive Director

Celebrate the Freshwater Land Trust's 25th Anniversary by becoming a Freshwater Fan – its new membership program.

It's easy. Sign up and contribute today.

<https://freshwaterlandtrust.org/get-involved/freshwater-fans/>