

The North Alabama Zoo

Estimates of Economic Impact

NALZS

By

Zachary Cole

Brinda Mahalingam

Jeff Thompson



THE UNIVERSITY OF
ALABAMA IN HUNTSVILLE

A stylized illustration of a monkey in profile, walking to the right. The monkey is rendered in a dark grey silhouette with a white outline. Its tail is exceptionally long and curls upwards and then back down. The background consists of layered, light grey mountain ranges. A thin, dark grey circular line arches over the top of the scene, framing the monkey and the mountains. The word "NALZS" is centered in the middle ground, with "NAL" in orange, "ZS" in blue, and the "Z" and "S" overlapping.

NALZS

Executive Summary

The North Alabama Zoological Society is planning on opening a zoo in North Alabama. The Zoo will not only be a major tourist attraction but also have an educational and conservational component. The region considered for this economic impact is the Huntsville Metropolitan Statistical Area (MSA), which is comprised of Madison and Limestone counties. The estimate for economic impact of construction, operations and visitors from 2023 to 2028 are presented.

- ❖ Phase I of the North Alabama Zoo is planned to begin in 2023.

- ❖ The total economic impact of Phase 1 of the zoo, including construction, Operations and Visitors over a 6-year period is \$117,910,719.

- ❖ The economic impact of construction alone is \$62,567,235.

- ❖ The economic impact of Operations and visitors over the 6-year period is \$55,343,484.

- ❖ The total tax impact for the local region is \$1,427,926.

Project Overview¹

A new zoological and aquaria park (hereafter zoo) is planned for the Huntsville MSA in Alabama by the North Alabama Zoological Society (NALZS). Its purpose, at its surface, will be an attraction for tourists and the casual visitor, yet in a deeper vein a focal point for North Alabama's varied interests in wildlife and natural habitat. The park will become a conservation, research, and education center where community members' efforts will have an impact on the world stage. This zoo will ultimately be the communities and will be run by a board of directors selected from the Huntsville community with decades of combined professional experience.

The Huntsville MSA is repeatedly ranked as one of the top metro areas in the country to live by various associations using various metrics. Including SmartAsset listing Huntsville “#2 for career opportunities post-COVID-19,” US News Best Places Rankings of “#1 on 2019 Best Affordable Places to Live” and the Wall Street Journal's ranking of Huntsville as #3 “where you should move to make the most money.” The Huntsville MSA has sustained growth and proven stability and recovery under economic duress.

The economy of Madison County has shown its resilience to shocks once again, this time during the Covid-19 pandemic. From the spike in the unemployment rate in April of 2020 until years end the Huntsville MSA's rate of unemployment always remained lower than that of the state and the nation. Compared to the nation, during Covid-19 (April-December 2020), the Huntsville MSA has had lower unemployment rates. The rate has ranged from 5.6% to 2.4% lower during this period. By the end of 2020 the MSA was 0.7% lower than the state and 3.7% lower than the nation's rate of unemployment. The preliminary rate of unemployment in the Huntsville MSA for December 2020 (2.8%) is lower than pre-Covid-19 June's (2019) rate of 2.9%.

As of 2019 the Huntsville MSA (Madison & Limestone Counties) contained a population of 471,824 persons with per capita personal incomes of \$52,110. The MSA had a total GDP of

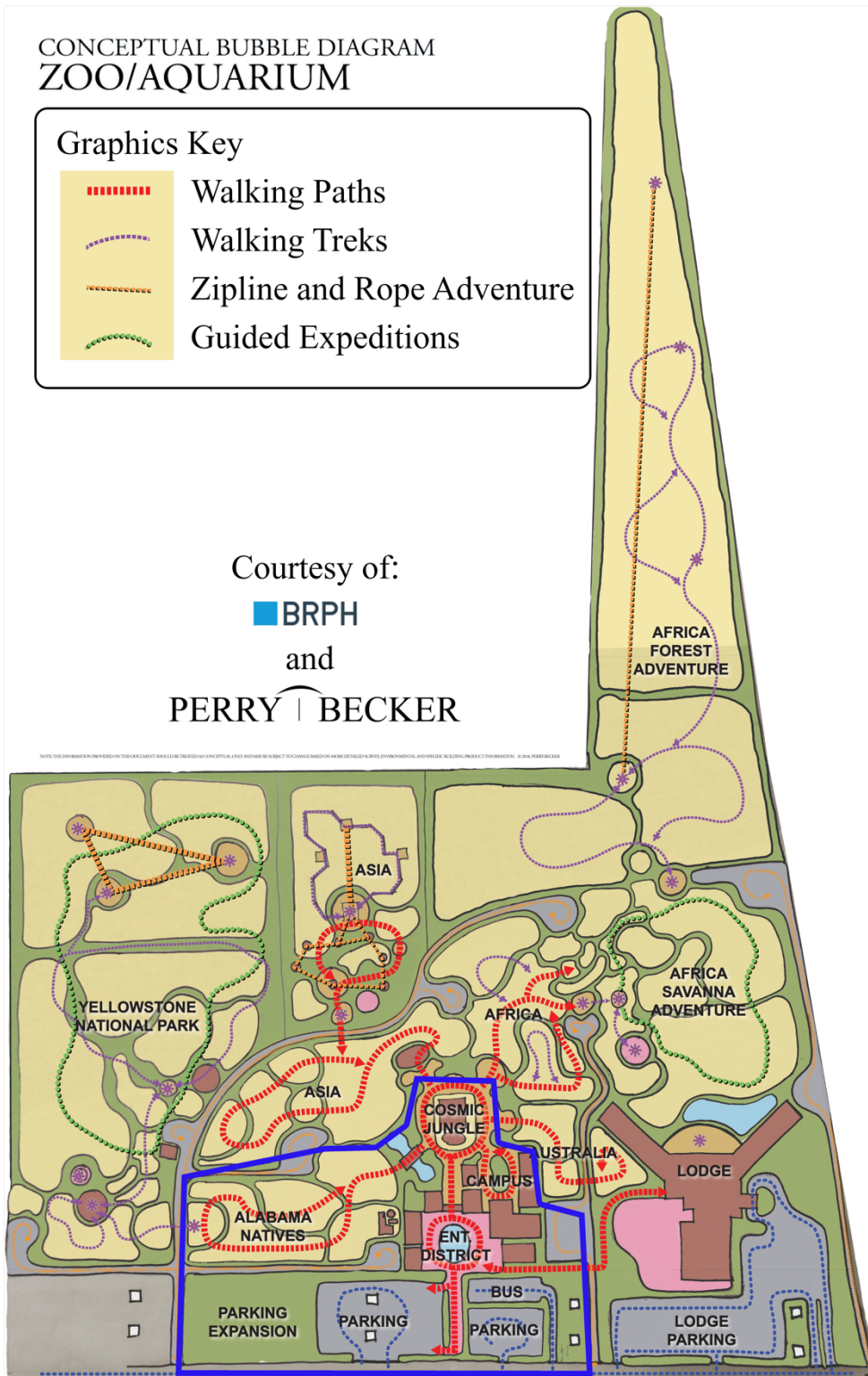
¹ Information contained in this section comes from NALZS provided documents, the Alabama Tourism Department, the Huntsville Madison Co Chamber of Commerce, the US Census Bureau, and the Federal Reserve Bank of St. Louis

\$29,467,759,000. Considering GDP per person, the Huntsville MSA exceeds the much larger Birmingham-Hoover MSA by \$4,154/person, \$62,455 compared to \$58,301.

Huntsville houses the state's largest and third largest paid tourist attractions; the U.S. Space & Rocket Center and the Huntsville Botanical Gardens respectively. Combined they brought over 1.2 million paying attendees. Zoos within the state are also top attractions; the Birmingham Zoo and the Montgomery Zoo were second and ninth respectively; with a combined attendance of 788,710 people. With the areas strong growth, productivity, and stability people are moving from all over to the Huntsville MSA. The 2014-2018 data set on migration from the U.S. Census Bureau shows a net gain of an estimated 1,113 people to the MSA from other states and another 1,878 from foreign countries alone. This project would help fulfill the desires of Huntsville's growing and diverse population.

The zoo project will be built in multiple phases. The primary site for the zoo will be 117 developable acres (279 acres total) located near the intersection of I-565 (the main thoroughfare from Huntsville to I-65) and I-65 (connecting the Gulf of Mexico to Chicago) and just south of Tanner, Alabama. The secondary support site is about 50 developable acres (200 acres total) located a few minutes west of County Line Road and will house some back of house facilities. Phase 1 will develop just under 25 acres for basic attractions and operations for the children's zoo portion. The intent is to start simpler exhibits with regional animals and attractions that add to family fun when visiting, i.e. park and play areas.

Figure 1
Zoo & Aquarium Layout



Note: Phase 1 includes all in blue except the aquarium building (detailed in Phase 1 appendix) Source: NALZS

Economic Impact Estimation Process

An economic impact study is a process which tracks the spending related to the specified project through an economy to estimate changes in economic activity. It analyzes the effect on a geographical region such as a county or state or other region specified by the sponsor. An economic impact analysis can also provide insight into employment changes related to the activity.

Economic impacts are commonly stated in terms of direct, multiplier, and total impacts. Direct expenditures for the construction and/or spending by a particular industry results in production and/or spending by other directly related industries such as building materials, compensation, and product purchases. The multiplier impact is the total of the indirect plus induced impacts. Direct spending will also stimulate the creation of goods and services consumed by the project which is the indirect impact. Other spending by the project employees, such as spending in restaurants, housing improvements, and other spending by related companies, that are not directly related to the project results in induced effects.

The economic impact analysis for this project was performed using the IMPLAN model. IMPLAN generates multipliers and estimates using regional and local data collected by IMPLAN at the zip code level. The model generated economic multipliers are used to calculate economic activity in industry sectors which are summed for the total economic impact estimate. Primary data used in these calculations are provided by the study sponsor. If the analysis team supplements the data for more granularity, the source is shown in the assumptions. Assumptions used in the calculations are shown on page 6 of this report.

Economic Impacts Summary

The total dollar economic impact for Phase 1 of The NALZS project, as described in Table 1, is estimated at \$117,910,719 in the Huntsville MSA (Limestone and Madison Counties). Employment is broken up into construction impacts and Operations and Visitor impacts. While the main construction for the zoo is the first two years, and maintenance continues from year 4.

Employment for Operations and Visitors while increasing over the 6 years of this study, this employment does not compound over the years and therefore we use the sixth year as the jobs impact.

Table 1
Total Economic Impact over a period of 6 years (2021-2026)

Total Economic Impact	Direct Effect	Multiplier Effect	Total Effect
Output	\$68,670,313	\$49,240,406	\$117,910,719
Labor Income	\$41,578,782	\$15,171,238	\$56,750,019
Employment (construction)	511	181	692
Employment (Operations and Visitors)*	140	44	184

*Employment for Operations and Visitors shows only the sixth year impact

The three major areas of the project that impact the economy are construction, operations, and tourism (visitors), respectively accounting for \$62,567,235; \$34,793,644; and \$20,549,840, as shown in Table 2

Table 2
Economic Impact by Category

	Direct Effect	Multiplier Effect	Total Effect
Construction	\$35,466,270	\$27,100,965	\$62,567,235
Operations	\$19,374,563	\$15,419,081	\$34,793,644
Visitors	\$13,829,479	\$6,720,361	\$20,549,840

Construction expenses from the project are estimated to create an impact of \$62,567,235 while creating 692 jobs. The majority of the impact vis-à-vis construction is concentrated in the first two years of the project but will continue to add value into the future. This should produce \$36,998,354 (over the six years of this study) of income to labor. The breakdown by year is given in Table 3.

Table 3
Total Impact of Construction of the ZOO

	2023	2024	2025	2026	2027	2028	Total
Output	\$31,302,745	\$25,041,874	0	\$802,798	\$787,293	\$4,632,526	\$62,567,235
Labor Income	\$18,314,862	\$14,964,890	0	\$479,748	\$470,482	\$2,768,373	\$36,998,354
Employment	351	274	0	9	9	51	692

The operational side of the project is estimated at a total impact to the MSA by \$34,793,644 and creating about 112 jobs over the period of this study. The year by year impact of the zoo operations are given in Table 4. The zoo is set to open to the public in the year 2025 and the number of jobs is expected to grow over the next three years.

Table 4
Total Impact of Zoo Operations

	2023	2024	2025	2026	2027	2028	Total
Output	\$594,358	\$1,172,812	\$5,926,162	\$8,434,707	\$8,995,031	\$9,670,574	\$34,793,644
Labor Income	\$200,224	\$395,090	\$1,996,371	\$2,841,435	\$3,030,194	\$3,257,767	\$11,721,080
Employment	7	14	69	98	104	112	

*Total Employment for Operations is not given since employment will not be compounded over the years

Since the Zoo is planned to open in 2025, Visitor numbers are expected to grow over the next three years of the study. Visitor numbers provided by NALZS begin in year three of the project. It is estimated that visitors will impact the economies of Madison and Limestone Counties by \$20,549,840. The employment though increases over the next three years is not compounded and so the total employment effect uses only the sixth year. The total impact of visitors for each year is given in Table 5.

Table 5
Impact of Visitors to the Zoo

	2025	2026	2027	2028	Total
Direct Impact	\$2,780,297	\$3,412,871	\$3,686,692	\$3,949,619	\$13,829,479
Multiplier Effect	\$1,350,946	\$1,658,407	\$1,791,565	\$1,919,444	\$6,720,361
Total	\$4,131,243	\$5,071,278	\$5,478,257	\$5,869,062	\$20,549,840
Total Employment Effect	51	62	67	72	

*Total Employment for Visitors is not given since employment will not be compounded over the years

Increases in local taxes generated by the project, for the duration studied, are estimated to be \$1,427,926. Of this \$714,017 is generated through construction of the project while the remaining \$713,909 derives from the operation and tourism aspects of the project, as seen in Table 6 below.

Table 6
Total Tax Impacts of the Zoo

Construction	\$714,017
Operations & Tourism	\$713,909
Total	\$1,427,926

Final Note: Economic Impact analysis has been performed for many years, and while the tools and methodologies have improved tremendously these days, users should understand that the calculations produce estimates, to represent the magnitude of the impact rather than exact measures. The assumptions used to construct and run the economic models influence the calculations and should not be considered insignificant. Economic models often reflect past economic relationships and may not sufficiently represent an economic area experiencing dramatic changes.

Assumptions Used in Calculations

- The NALZS is working on Phase 1 of the project and the study only provides the economic impacts for Phase 1.
- The NALZs is planning on acquiring an initial 25 acres for the zoo and the construction, operations costs were provided by NALZS
- The total visitor numbers were provided by the zoo for four years after the zoo opened for operations in 2025, and were 200,000, 250,000, 275,000 and 300,000 respectively.
- Out of town visitors were 5% of total visitors. Room nights are calculated by dividing the overnight visitor total by 4 (people per room)
- Education visitors were 5% of total visitors and were assumed to be from local area schools.
- The Zoo also plans to have gift shops, and café and this study assumes these will be contracted out and therefore not included in the calculations.
- Admission rates were provided by NALZs at \$16.95 per person and Education visitors were at \$7.00 per person.

- Provided data was consistent with costs and revenue projections published by The Association of Zoos and Aquariums (AZA) medium sized zoos at the 50th percentile.
- While the project is organized as a non-profit, no preferential tax treatments or abatements are made or included in this estimate.

Appendix: Phase 1

Figure 2: Alabama Section

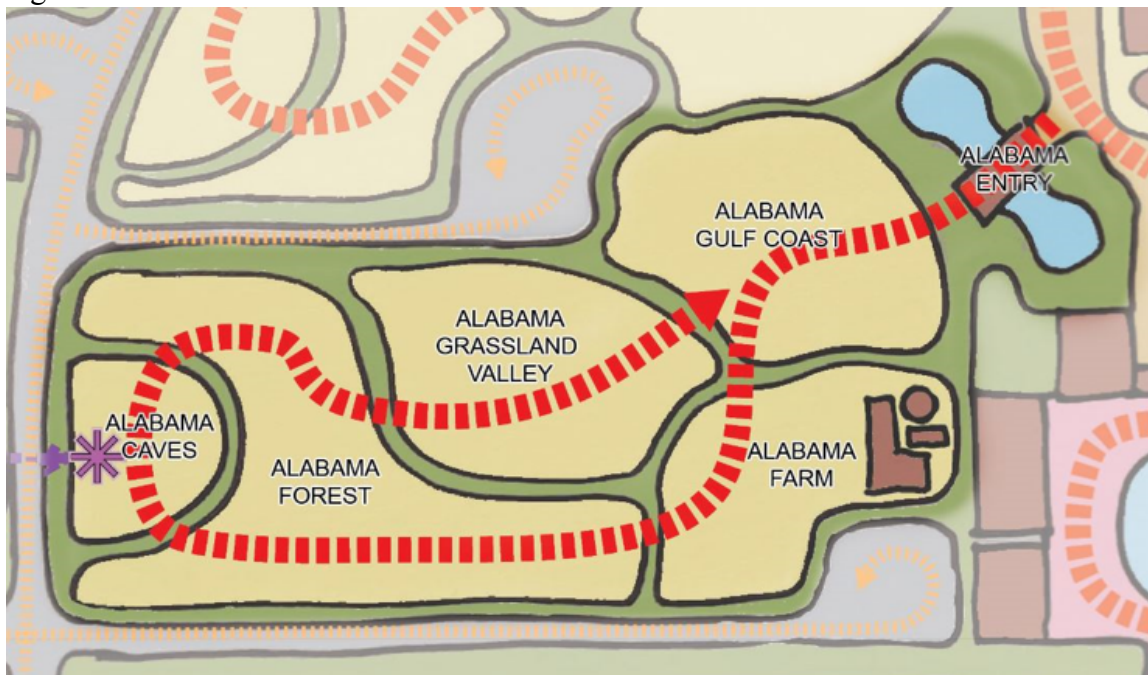


Figure 3: Campus Section

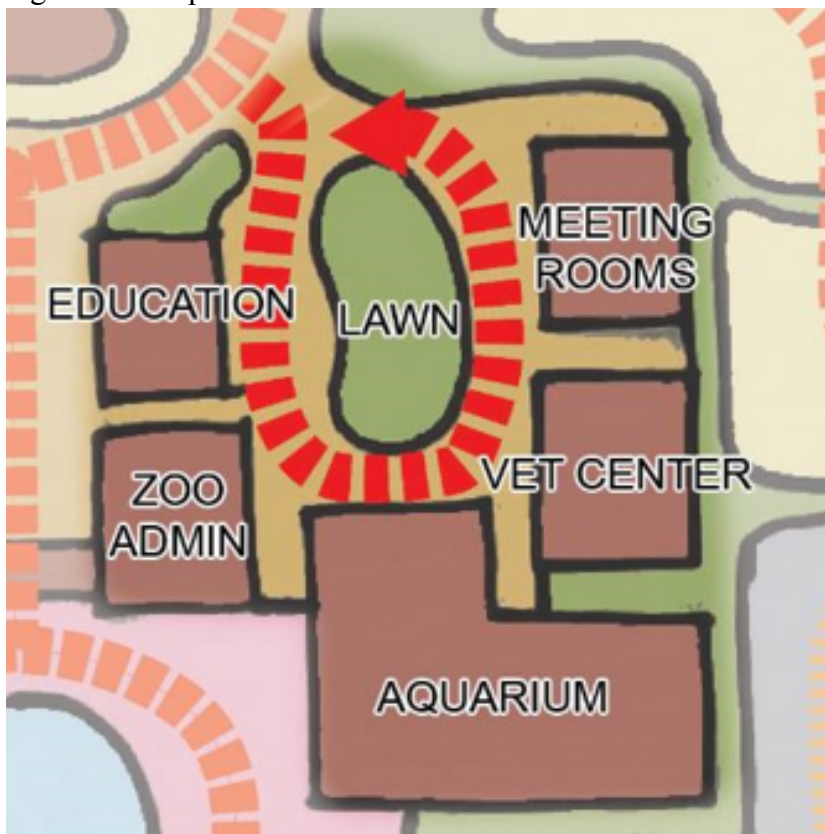


Figure 4: Cosmic Jungle Section

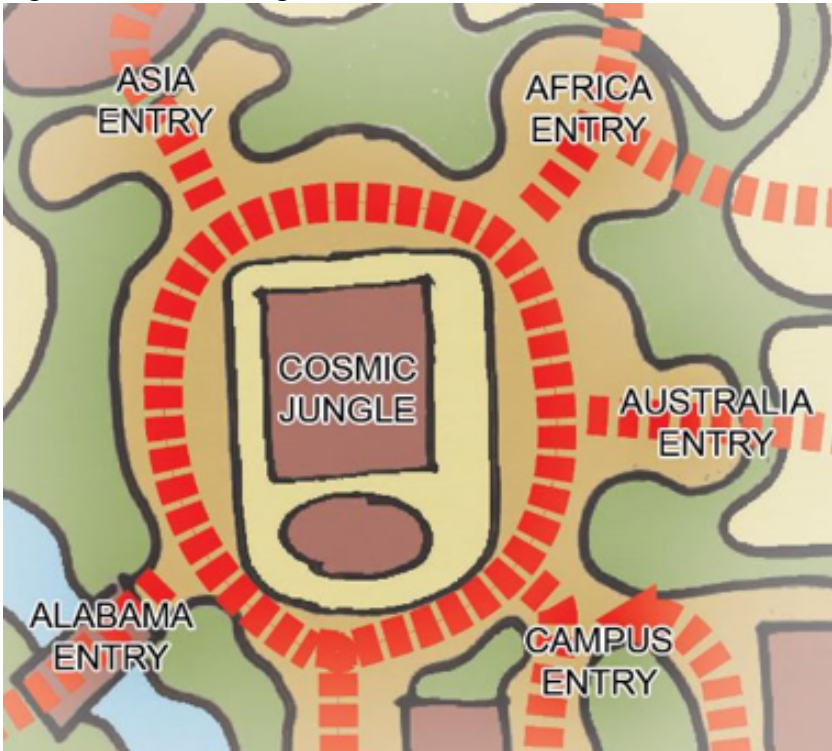


Figure 5: Entry District Section

