

Footprint Analysis of Tennessee Technological University

Case of 2018 – 2019 Academic Year

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Introduction

- The study utilizes dynamic economic modeling software developed by Regional Economic Modeling, Inc. (REMI)
 - captures the direct, indirect, and induced impacts of the university on the regional economy.
- These economic impacts stem from several sources:
 - faculty and staff employment and wages
 - graduate earnings and employment
 - student population and expenditure
 - sporting events
 - auxiliary revenue
 - construction and building renovations
- To account for real changes from the baseline, this study reports a five-year average spanning from 2021-2025.



Methodology and Simulation Inputs

Industry NAICS Code & Description	Adjustment to Wages and Salaries
55 - Management of companies and enterprises	\$120,761
61 - Educational services; private	\$55,319
561 - Administrative and support services	\$2,011
61 - Educational services; private	-\$18,306
54 - Professional, scientific, and technical services	\$43,795

- TTU graduates' wage differential were tabulated using 2019 median wage rates reported by the Bureau of Labor Statistics for each higher education level. The differentials were entered as wage bills.
- TTU student enrollment for the academic year 2018-2019 was 10,140.
- To derive student expenditure, graduate and undergraduate students are treated as two separate groups with different spending patterns as determined by TTU's cost of attendance estimates.
- Tourism variables which capture spectator spending during TTU sporting events are intended to reflect the gains from restaurant, fast food, grocery, souvenir, retail, amusement, and gasoline expenditure.



Key Assumptions

- The university spends all revenue each year and does not operate a deficit.
- The university's student population, employment, and revenues do not grow during the period of simulation.
- Absent TTU, individuals in the region would not obtain college degrees.
- Seventy-six percent of TTU alumni find employment in Tennessee.
- Approximately 34% of undergraduates acquire off-campus housing.
- All graduate students acquire off-campus housing.
- Sixty percent of sporting event spectators reside within 100 miles of the university.
- Construction expenditure will remain the same throughout the duration of model simulation.



Results and Analysis

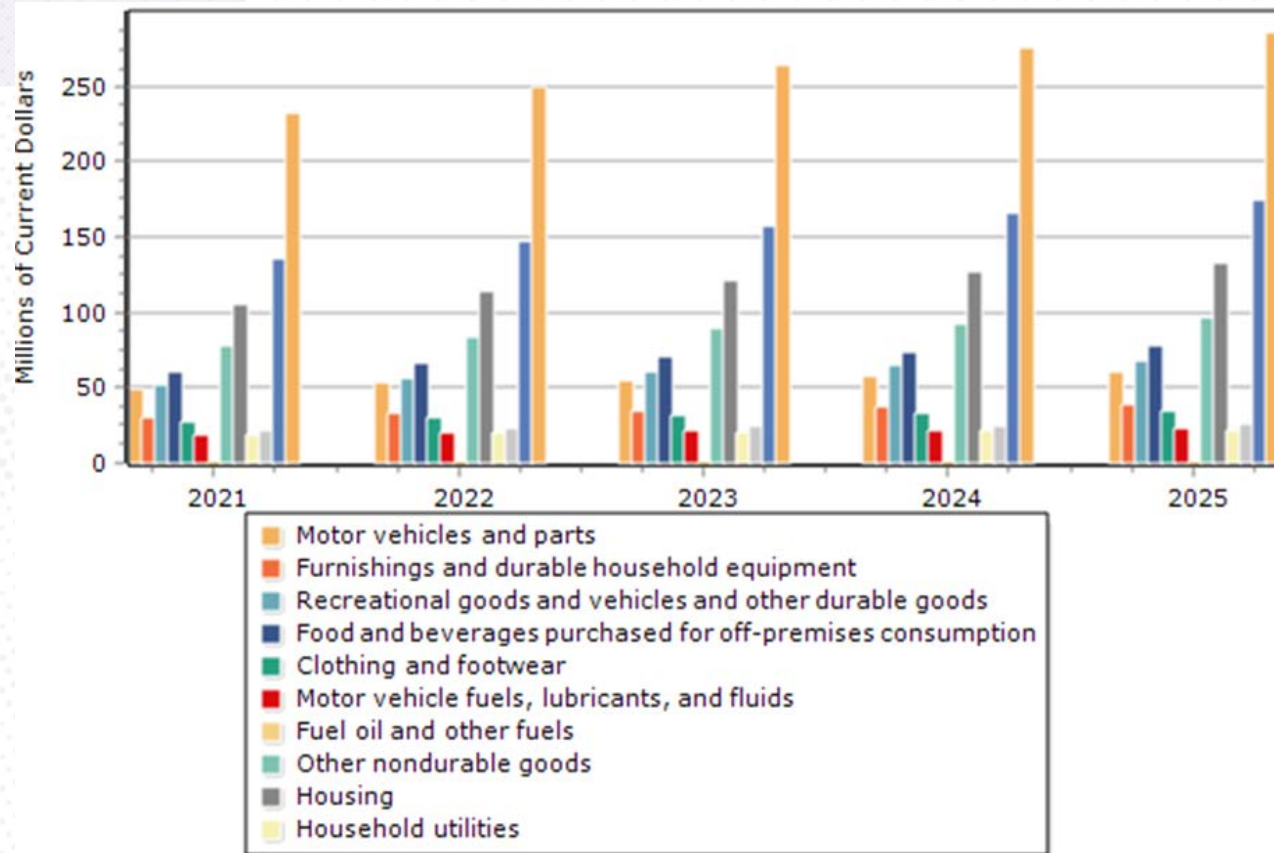
2018-2019 Footprint Analysis of Tennessee Technological University Region: Tennessee			
Category	Units	without Graduate Effects	with Graduate Effects
Total Employment	Individuals (Jobs)	7,532	13,924
Gross Domestic Product	Current Dollars	749,279,600	1,570,681,626
Output	Current Dollars	1,194,630,300	2,770,183,568
Personal Income	Current Dollars	526,452,916	1,191,933,746
Real Disposable Personal Income	Fixed (2012) Dollars	363,605,677	820,921,998

2018-2019 Footprint Analysis of Tennessee Technological University Region: Upper Cumberland			
Category	Units	without Graduate Effects	with Graduate Effects
Total Employment	Individuals (Jobs)	6,096	7,770
Gross Domestic Product	Current Dollars	577,405,176	764,686,062
Output	Current Dollars	913,024,392	1,322,265,795
Personal Income	Current Dollars	412,657,760	579,026,770
Real Disposable Personal Income	Fixed (2012) Dollars	369,564,542	408,517,790



Results and Analysis

Personal Consumption Expenditure: Tennessee Region



Results and Analysis

2018-2019 Footprint Analysis of Tennessee Technological University: Employment by Industry						
Region: Tennessee						
Industries	Units	Year				
		2021	2022	2023	2024	2025
Forestry, fishing, and hunting	Jobs	10	8	6	5	4
Mining	Jobs	34	32	30	28	26
Utilities	Jobs	36	35	35	34	33
Construction	Jobs	3366	3252	3020	2740	2461
Manufacturing	Jobs	934	906	876	849	825
Wholesale trade	Jobs	294	290	284	277	271
Retail trade	Jobs	1304	1323	1324	1315	1303
Transportation and warehousing	Jobs	319	312	303	293	285
Information	Jobs	101	100	99	98	97
Finance and insurance	Jobs	164	156	147	140	133
Real estate and rental and leasing	Jobs	643	639	625	605	586
Professional, scientific, and technical services	Jobs	896	899	894	886	878
Management of companies and enterprises	Jobs	59	59	58	57	56
Administrative, support, waste management, and remediation services	Jobs	1074	1069	1058	1045	1032
Educational services; private	Jobs	1556	1555	1554	1553	1551
Health care and social assistance	Jobs	772	786	794	799	804
Arts, entertainment, and recreation	Jobs	156	154	152	149	147
Accommodation and food services	Jobs	872	891	901	906	909
Other services (except public administration)	Jobs	504	508	507	503	500
State and Local Government	Jobs	1292	1344	1362	1357	1341
Federal Civilian	Jobs	0	0	0	0	0
Federal Military	Jobs	0	0	0	0	0
Farm	Jobs	0	0	0	0	0
All Industries	Jobs	14386	14321	14028	13638	13244



Questions???

