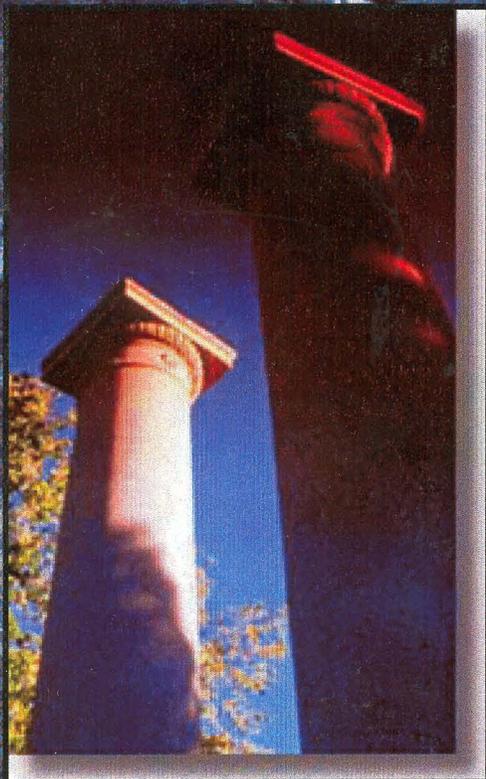


The Economic Impact of the University of Nebraska 1997-98

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Bureau of Business Research
University of Nebraska-Lincoln

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prepared by
Bureau of Business Research (BBR)



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Summary

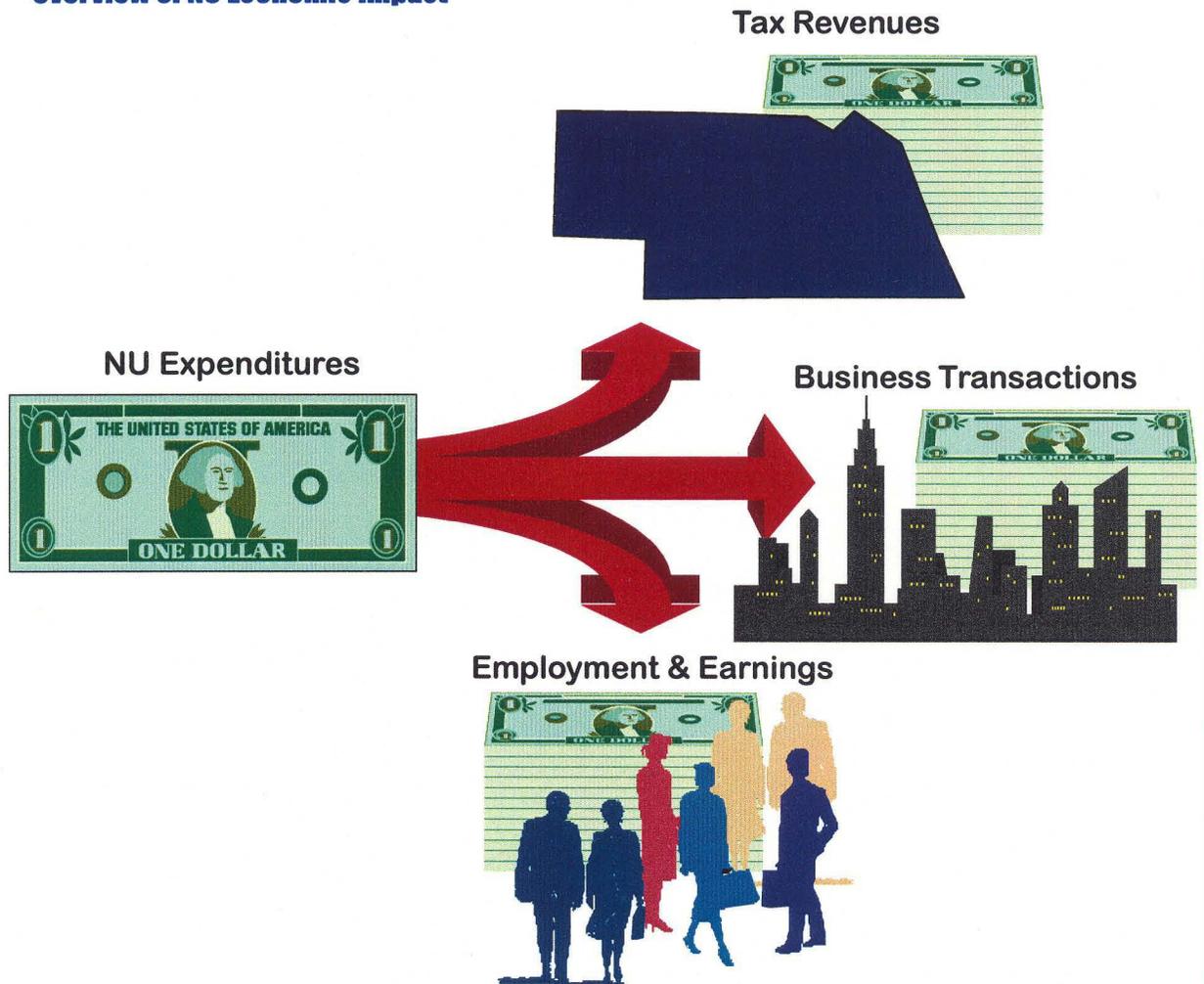
- The economic activity generated by the University of Nebraska (NU) consists of general operations and construction expenditures on the part of the system, combined with the personal expenditures of NU personnel and students. This activity results in multiple immediate impacts on the Nebraska economy.
- The revenues of the University of Nebraska totaled \$1.2 billion in fiscal year 1997-98. More than 60 percent of the revenues consisted of external funds from sources including federal grants, private gifts, and non-resident student tuition.
- The economic activity of NU generated \$2.3 billion in private business transactions (or receipts) in the state of Nebraska during the 1997-98 fiscal year. Adding to that the total revenues of the NU system in 1997-98 yields \$3.5 billion in total transactions.
- NU economic activity positively impacts each of the state's industrial sectors. NU-generated activity in the retail trade sector accounted for more than 5 percent of total net taxable retail sales statewide in 1997.
- NU economic activity supported the equivalent of over 26,000 jobs in the state's economy. Adding to that the number of NU employees yields a workforce of more than 42,700 supported directly or indirectly by NU activity.
- Employment earnings generated by the economic activity of NU totaled over \$430 million dollars. Combining this total with wages and salaries paid to NU personnel yields total employment earnings of nearly \$960 million during fiscal year 1997-98.
- NU activity was associated with an estimated \$131 million in sales, income, and property tax revenues in fiscal year 1997-98. This figure is equivalent to 38 percent of annual state appropriations to the system.
- The economic activity associated with NU's external funds accounted for more than \$81 million of the total tax impact. This impact is nearly 24 percent of the total state appropriation to NU in 1997-98.
- For every dollar of state funds invested in NU, an average of more than \$9 dollars in business transactions was generated in the state's economy.

Introduction

The economic activity generated by the University of Nebraska consists of general operations (current fund) and construction (plant fund) expenditures on the part of the system, combined with the household expenditures of NU personnel and students. This activity results in multiple immediate impacts on the Nebraska economy. These impacts take the form of business transactions, household earnings, employment, and tax revenues (Figure 1).

An inter-industry analysis was conducted to calculate the immediate impacts of the University of Nebraska¹ on the economy of the state. The analysis utilized detailed revenue, expenditure, and payroll data from the NU system and updated survey data² on the income and expenditure patterns of NU faculty, staff, and students. The results of the analysis provide a conservative estimate of the substantial role that NU plays in the state's economy on an annual basis³.

Figure 1
Overview of NU Economic Impact



¹ The analysis includes the University of Nebraska Medical Center, but does not include the Nebraska College of Technical Agriculture.

² Surveys were originally conducted in 1994.

³ NU attracts numerous visitors to the state through its varied activities including academic conferences, sporting events, and hospital services. Estimates of the economic impacts generated by out-of-state visitors are not included in the current study.

Business Transactions

The economic activities that are vital to the fulfillment of the mission of the University of Nebraska (NU) do not exist in a vacuum. NU is not merely a consumer of funds, it is a generator of revenues. Every NU-related dollar spent to purchase goods or services triggers sales for businesses throughout the state, creating a multiplying effect on output, income, and the demand for labor.

The general operations of NU (purchases of supplies, equipment, and services) and plant fund expenditures infused approximately \$119 million directly into the state's economy in fiscal year 1997-98. As a result of that direct stimulus, over \$388 million in business transactions rippled throughout the economy. The personal expenditures of faculty, staff, and students, totaling over \$800 million, generated an additional \$1.9 billion in receipts. All together, the economic activity of NU generated more than \$2.3 billion in business transactions in fiscal year 1997-98 (Table 1). Adding to that the total revenues of the NU system yields nearly \$3.5 billion in transactions.

NU economic activity positively impacted each of the state's industrial sectors.⁴ Retail and wholesale trade generated nearly \$1.1 billion (or 46 percent) of transactions, followed by services at \$425 million (or 18 percent). The activity in the retail trade sector alone accounted for more than 5 percent of total net taxable sales statewide in 1997.

Table 1
Business Transactions Impact by Sector, 1997-98

	<i>Transactions (\$)</i>	<i>Distribution</i>
Agricultural Production	26,202,110	1%
Mining & Construction	133,769,216	6%
Manufacturing	188,638,399	8%
TCU	145,056,808	6%
Trade	1,065,426,510	46%
FIRE	338,770,085	15%
Services	425,733,367	18%
Private Sector Impact	2,323,596,486	100%
NU Revenues	1,169,062,473	
Total Impact	3,492,658,959	

⁴Note on sectors: TCU Transportation, Communication, and Utilities; FIRE—Finance, Insurance, and Real Estate; Trade—wholesale and retail; Services—includes agricultural services.

Employment and Earnings

NU economic activity supported the equivalent of over 26,000 jobs in the state's economy (Table 2). Adding to that the number of NU employees yields a workforce of over 42,700 supported directly or indirectly by NU activity.

NU employed approximately 16,720 persons statewide, not including student employees, and disbursed a payroll of nearly \$530 million in fiscal year 1997-98. For every job on campus, at least one additional full- or part-time job was supported throughout the state by NU economic activity in 1997-98. Employment in the services and trade sectors of the state's economy was most impacted—nearly 11,000 service jobs and over 7,600 trade sector jobs were supported by NU activity.

Table 2
Employment Impact by Sector, 1997-98

	<i>Employment</i>	<i>Distribution</i>
Agricultural Production	280	1%
Mining & Construction	1,705	7%
Manufacturing	1,408	5%
TCU	1,170	5%
Trade	7,678	30%
FIRE	2,932	11%
Services	10,842	42%
Private Sector Impact	26,015	100%
NU Employment	16,720	
Total Impact	42,735	

Employment earnings generated by the economic activity of NU totaled over \$432 million dollars (Table 3). Combining this total with wages and salaries paid to NU personnel yields total employment earnings of nearly \$960 million during fiscal year 1997-98.

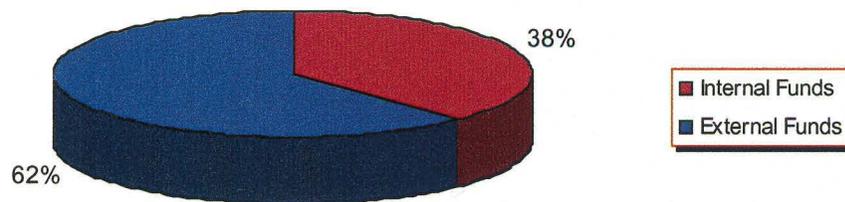
Table 3
Employment Earnings Impact by Sector, 1997-98

	<i>Earnings (\$)</i>	<i>Distribution</i>
Agricultural Production	3,048,324	1%
Mining & Construction	39,908,997	9%
Manufacturing	33,646,873	8%
TCU	36,104,929	8%
Trade	101,381,357	23%
FIRE	72,488,580	17%
Services	145,429,827	34%
Private Sector Impact	432,008,887	100%
NU Employee Earnings	527,293,386	
Total Impact	959,302,273	

Budget and Tax Revenues

NU is a major economic force fueled by many revenue sources. State and local government appropriations, grants and contracts, and resident tuition (internal funds) accounted for only 38 percent of the total current fund revenues in fiscal year 1997-98 (Figure 2). NU brings millions of dollars annually into Nebraska from external sources,⁵ including \$141 million in federal grants, contracts, and appropriations in fiscal year 1997-98. Private gifts, grants, and contracts totaled over \$57 million, and endowment income accounted for more than \$3 million of NU's 1997-98 revenues. Student tuition and fees generated more than \$120 million in revenue, an estimated \$32 million of which came from non-resident students. External funds, including the sales and services⁶ of NU educational activities, hospital and clinics, and auxiliary operations (including sporting events), comprised 62 percent of the 1997-98 NU current fund revenues.

Figure 2
Distribution of NU Funding, by Source, Fiscal Year 1997-98

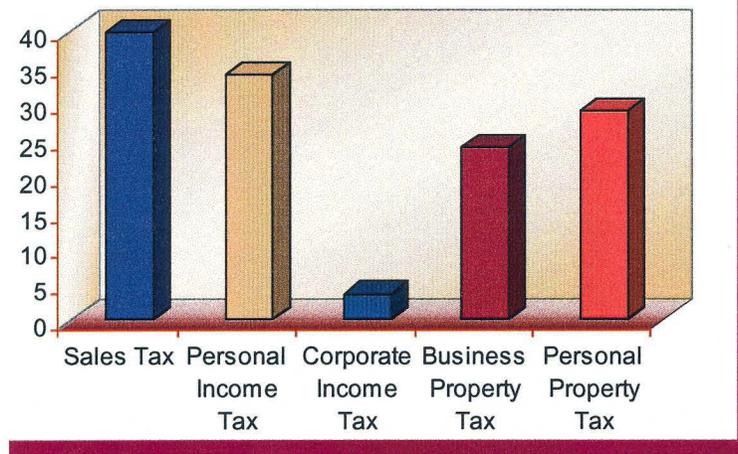


⁵ As used in this report, the term *external funds* includes federal government appropriations, grants and contracts; non-resident tuition; private gifts, grants and contracts; endowment income; and income from sales and services.

⁶ Sales and services of educational activities, hospital and clinics, and auxiliary operations totaled slightly more than \$430 million in fiscal year 1997-98.

The economic activity directly and indirectly generated by NU operations, and faculty and staff expenditures, including earnings and employment impacts can be associated with an estimated \$131 million in state and local tax revenues (Figure 3).⁷ Those revenues are equivalent to 38 percent of total state appropriations to NU. Included in the revenues estimate are over \$40 million in sales tax receipts, nearly \$34 million in state personal income tax receipts, \$3.6 million in corporate income taxes, and \$24 million in business property taxes, as well as over \$29 million in personal property taxes flowing to local governments.

Figure 3
NU State and Local Tax Revenue Impact
(\$ millions)



As reported above, 62 percent of the NU budget during fiscal year 1997-98 consisted of external funds and sales revenues, including federal grants, private gifts, and non-resident tuition. Applying this percentage to total tax revenues generated by NU yields a tax impact of more than \$81 million that resulted from the flow of external funds and sales revenues into the NU system. That impact is equivalent to nearly 24 percent of total state appropriations to NU.

State appropriations to NU in fiscal year 1997-98 totaled \$342 million dollars. For every dollar of state funds invested in NU, therefore, an average of more than \$9 dollars in business transactions was generated in the state's economy.

⁷The tax impact estimates are based on data from the Nebraska Department of Revenue and the U.S. Department of Commerce, Bureau of Economic Analysis.

Appendix A

Input-Output Model

The current study utilized the technique of input-output analysis, a branch of economics attributed largely to Wassily W. Leontief, professor of economics at Harvard University. In 1973 Leontief received the Nobel Prize in Economics for his development of input-output analysis.

Input-output analysis is based on a mathematical system of equations that reflect interindustry transactions. The dynamics of the input-output system determine the multiplying effect of direct expenditures (e.g., by the University of Nebraska, staff, and students) into the economy (e.g., Nebraska). Using input-output analysis software developed by Charles Lamphear and Ron Konecny, the Bureau of Business Research constructed the 1992 State Input-Output Model to capture the inter-industry dynamics of transactions in the Nebraska economy. Transactions are tracked through the following sectors in the Nebraska system:

Nebraska Input-Output Sectors

1. Crops
2. Livestock
3. Agricultural Service, Forestry, Fishery Products
4. Mining
5. Construction
6. Meat Packing & Processing
7. Other Food Products
8. Textiles and Apparel
9. Lumber and Wood Products
10. Furniture
11. Paper and Allied Products, including Containers
12. Newspapers and Periodicals
13. Other Printing and Publishing
14. Agricultural Fertilizers and Chemicals
15. Other Chemicals, Drugs, Cleaners, etc.
16. Rubber and Misc. Plastic Products
17. Glass, Stone and Clay Products
18. Primary Ferrous and Nonferrous Metals Mfg.
19. Fabricated Metals Products
20. Farm, Construction, and Mining Machinery
21. Engines and Turbines and Nonfarm Machinery
22. Electrical Industrial Equipment and Household Appliances
23. Transportation Parts and Equipment
24. Scientific and Control Instruments
25. Other Manufacturing
26. Railroads and Related Services
27. Motor Freight Transportation and Warehousing
28. Air Transportation
29. Other Transportation
30. Communications
31. Utilities
32. Wholesale Trade
33. Retail Trade
34. Finance
35. Insurance
36. Real Estate
37. Hotels and Lodging Places
38. Personal and Repair Services, except Auto
39. Computer and Data Processing Services
40. Legal, Accounting and Engineering Services
41. Other Business and Professional Services
42. Eating and Drinking Establishments
43. Automotive Repair and Services
44. Physicians and Dentists
45. Hospitals
46. Other Medical Services
47. Colleges, Universities, and Professional Schools⁸
48. Other Services
49. Households

⁸ Sector 47 was designed specifically to represent the University of Nebraska.

