GENERAL PRINCIPLES OF THE TRADITIONAL ECONOMIC IMPACT ASSESSMENT

EDUCATING STUDENTS, IMPACTING COMMUNITIES
Regional Definitions

Athens Campus and Southeast Ohio
The definition of the economic impact regions associated with the Athens campus and the entire University is based on the distribution of employees and compensation by ZIP code. This is a common method for analyzing service areas in economic impact analysis and is traditionally used to define economic regions. This will be the primary basis for defining the Athens and Southeast Ohio impact regions, adjusted by including otherwise excluded counties that are part of a regional campus’s targeted service region.

Regional Campuses
The case of regional campuses have existing predefined service areas. Each regional campus tailors its efforts and initiatives to the needs of this local region. This analysis will use these predefined service areas as the basis for estimating regional campus impacts on the surrounding community, with one modification: Franklin County has been added to both the Chillicothe and Zanesville campus service areas, because a large number of employees who work at Chillicothe and Zanesville live in Franklin County. Excluding this county from the regional definitions would significantly underestimate the true impact of the Chillicothe and Zanesville campuses.

Region Definitions
1. The first region is the state of Ohio in total.
2. The Southeast Ohio region extends from Franklin County east along I-70 to Belmont County, with Coshocton, Harrison, and Jefferson counties on its northern border, and from Franklin County south along US 23 to Scioto County with Highland County at its western border. In total, the region includes Franklin, Licking, Muskingum, Guernsey, Belmont, Pickaway, Fairfield, Perry, Morgan, Noble, Monroe, Ross, Hocking, Vinton, Athens, Washington, Pike, Jackson, Meigs, Scioto, Lawrence, Highland, Coshocton, Harrison, Jefferson and Gallia counties.
3. Two regions were analyzed for the Athens Campus:
   a. Athens County by itself; and
4. The Chillicothe Campus region encompasses Ross, Pike, Pickaway, Jackson, Vinton, Highland, and Franklin counties in Ohio.
5. The Eastern Campus region comprises Belmont, Harrison, Jefferson, Monroe, and Guernsey counties in Ohio and Ohio, Brooke, and Marshall Counties in West Virginia.
6. The Lancaster Campus and Pickerington Center region covers Franklin, Fairfield, Pickaway, Hocking, Licking, and Perry counties in Ohio.
7. The Southern Campus and Proctorville Center region comprises Lawrence and Scioto counties in Ohio, Greenup and Boyd counties in Kentucky, and Cabell and Wayne counties in West Virginia.
8. The Zanesville Campus region encompasses Muskingum, Licking, Morgan, Coshocton, Perry, Guernsey, and Franklin counties in Ohio.

The Multiplier Concept
The basic concept behind traditional economic impact analysis is the multiplier, which measures the total response of an economy to a source of spending in that economy. In essence, multipliers capture the accumulated impacts of an initial expenditure after that expenditure is successively re-spent throughout a region.
At its simplest level, economic impact is generated through initial, direct, indirect, and induced means.

**Initial:** A new dollar of spending in a geographic area, such as a dollar spent by an Ohio University student at a local restaurant, will directly increase sales, wages, and number of jobs in the restaurant sector in that same area (the initial impact).

**Direct:** In turn, the restaurant will purchase a portion of its goods and services from supplier industries in the region (the direct impact), such as vegetables from an Ohio-based food vendor.

**Indirect:** A subsequent ripple effect occurs when the vegetable supplier in turn purchases goods and services from its suppliers—on fertilizer or seed, for example (the indirect impact).

**Induced:** Finally, these direct and indirect impacts will increase the incomes available to workers, who spend their income on goods and services for themselves throughout many other industries, generating further sales, income, and jobs (the induced impact) for businesses and workers in the region.

To estimate these effects, multiplier analysis involves an accounting of the leakages that occur in each successive round of spending. Leakages represent the money that is spent outside a region through purchase of external goods and services, payment of taxes, or saving of income. While each dollar of initial spending ripples through the economy as described above, the amount of spending in each successive round dwindles as a result of these leakages. At the point the ripples become too small to continue to measure, the in-region cumulative spending total is considered the final multiplier effect and determines the traditional economic impact that is calculated from the initial expenditure. Figure 1A demonstrates these concepts.

Regional Multipliers

Because a larger economic region is associated with larger multipliers than is a smaller economic region, understanding the regional definitions in the previous section highlights a critical concept in traditional economic impact analysis.

The reason larger regions are associated with larger multipliers is relatively easy to visualize by example. Consider an Ohio Bobcat football fan who stops for gasoline in Albany, Ohio, on the way to a home game. Then imagine that an economic impact assessment of this expenditure was conducted solely for the Village of Albany. The gasoline supplies purchased by the station are unlikely to come from an Albany wholesaler. The gasoline station employee might live within the village limits, but also might live outside them. Either way, the employee is likely to spend a large share of his or her paycheck in places that have a broader retail base that Albany can provide.

If, however, the economic impact of the football fan’s gasoline purchase was instead conducted for the surrounding 20-county region instead of just the village, then the share of the gasoline station’s spending, and its employees’ spending, that was spent in-region would undoubtedly be larger than the share that was spent just in the village. As the region becomes larger, so does the portion of spending that stays in-region and drives traditional economic impact, while the portion that leaks from the region becomes smaller.

In the traditional economic analysis impact conducted for this study, the spending of each Ohio University campus creates the largest economic impact on the State of Ohio, a smaller economic impact on the Southeast Ohio region, and an even smaller economic impact on its specific region (see Figure 1B).
OHIO UNIVERSITY STATEWIDE ECONOMIC IMPACT BY CATEGORY (FY2012)

UNIVERSITY SPENDING
$344 M Compensation
$564 M Operations
$106 M Capital

CONSTITUENT SPENDING
$370 M Students
$22 M Retirees
$75 M Visitors

AFFILIATE ENTERPRISE SPENDING
$35 MIL

TOTAL ECONOMIC IMPACT
$1.5 B

One aspect of the regional dynamics of this project is critical with respect to the effect on multiplier size. The regions configured for the Athens, Eastern, and Southern campuses extend beyond the borders of the state of Ohio. As a result, the impact multiplier for a given industry may well be larger for these campus regions than for the state of Ohio or Southeast Ohio.

Key Spending Categories

The first effort in conducting a traditional impact assessment is to identify key University and University-related spending that can be documented. An important principle used in the development of economic impact estimates was to consistently apply conservative assumptions. The analysis sections below describe specific assumptions used to prevent overestimation of economic impact.

Estimating the economic impact of University spending on investments; goods and services; wages and salaries; and the associated spending of OHIO students, visitors, retirees, and affiliated enterprises is the focus of the traditional economic impact assessment. This spending reverberates throughout the state to support employment, company sales, and worker earnings.
For each key component—economic output, jobs, and earnings—there are seven primary sources of impact spending, data each of which is described in greater detail below: Compensation, Operations, Capital Expenditures, Off-Campus Student Spending, Visitors, Retirees, and Affiliate Enterprises.

University Spending: Compensation, operations, and capital expenditures
Detailed data on employee compensation, general operating expenditures, and capital spending was used to determine the final traditional economic impact of OHIO. A key concept in the effort was the use of a *bill-of-goods* accounting that relied on a variety of University datasets to allocate spending at the most specific level of budgetary detail possible, connecting each expenditure line-item to the most precise level of industry detail available. Specifically, this includes aligning OHIO department-level expenditures with NAICS1 six-digit industry-level multipliers available from Economic Modeling Specialists, Intl.

Analysis of University spending focuses on three key elements:

- **Compensation**: Salaries and benefits OHIO pays to employees and the employees of OHIO-affiliate enterprises, which is then spent on local and nonlocal goods and services.2
- **Operations**: Total noncompensation and noncapital spending in OHIO and OHIO-affiliate budgets, except spending that is paid to OHIO itself; and spending from OHIO to an affiliate enterprise.3
- **Capital**: Spending on buildings or grounds, as well as categories of library materials and some equipment (generally, depreciable items).4

The University’s Constituents: Students, visitors, and retirees
Off-campus spending by University students, visitors, and retirees is a major economic driver of University economic impact. Spending by students and by visitors to athletic contests, plays, conferences, and hundreds of other events creates an important source of income for local businesses. OHIO’s retired employees5 are another important source of economic impact. To mirror the bill-of-goods approach described above, a detailed industry consumption basket for each constituency (student, visitor, and retiree) was estimated6 and then aligned with industry-standard, NAICS six-digit industry-level multipliers from Economic Modeling Specialists, Intl.

Off-Campus Student Spending
Student spending is a major economic driver for any university community. Student data were disaggregated by quarter into the following major categories:

1. Graduate vs. medical vs. undergraduate;
2. Part-time vs. full-time; and
3. Living on-campus vs. off-campus vs. distance learners.

The portion of off-campus students living at home with their parents was estimated, including whether these students lived in- or out-of-state, or in or out of the target regions around each campus.

Although student spending survey data were not available, this study utilized available data from regularly updated budget approximations, provided by the Student Aid office, to estimate student spending. This study relies on these calculated budgets to estimate the average semester costs for expenditure categories by type of student, and to make adjustments as needed, based on available research and student-aged population spending patterns identified in federal survey data.

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1 NAICS, the North American Industry Classification System, is the standard federal statistical agencies use in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.
2 This includes total compensation and benefits spending in the official budgets of OHIO or its affiliates, except for compensation paid to OHIO students by OHIO as the effect of all student compensation, which is reflected in the student spending category; and compensation or benefits that go back to the University (e.g., spousal tuition discounts or other internal transfers).
3 e.g., the Heritage College of osteopathic Medicine’s payments to University Medical Associates
4 An architecture firm is one type of common recipient, but so is a construction contractor, a bookseller, and many others.
5 Focused on retirement income only, thus conservatively estimating the spending power of OHIO’s retirees.
6 Estimates were conducted using microsample data from the Bureau of Labor Statistics’ Consumer Expenditure Survey.
University-Related Visitors
A series of analyses and assumptions were applied to the visitor data designed to generate consistently conservative estimates of off-campus spending by out-of-region visitors. For example, the off-campus spending of an Athens resident associated with attending a football game was not treated as net new spending in the region. The analysis sections and appendices provide more detail on specific assumptions used to prevent overestimating economic impact.

Without a complete central repository of data on university visitors, however, it is not possible to capture data on all University-related visitors; virtually every department and student and alumni organization—among others—hosts visitors, programs, and events at OHIO. Given these constraints, efforts for this study concentrated on capturing data and estimates for major events and events hosted by University events staff in major on-campus venues. Foundation and University staff were critical to helping us develop attendance and visitor profiles by event type.

Retirees
Retirees are not generally included in discussion of economic impact; however, many retirees live in proximity to the University. Such retirees clearly pass the “but-for” test; that is, absent their career at Ohio University, it is highly unlikely they would reside locally. Thus, this analysis treats spending by this group as a University-related economic impact. OHIO has no comprehensive database on retirees, but provided partial information on recent retirees by ZIP code of residence. Similarly, no direct information is available on retirees’ annual income and spending. U.S. Department of Commerce PUMS data from the Consumer Expenditure Survey was utilized to estimate retirement income and appropriate spending patterns for the population of retirement-aged individuals living in the target regions whose last job was with OHIO.

The University’s Affiliate Enterprises: University Medical Associates, Housing for Ohio, Inc., Ohio University Inn, and Russ Research Center.
OHIO’s operations are connected to a number of affiliate enterprises, such as University Medical Associates, Housing for Ohio, Inc., Ohio University Inn, and Russ Research Center. For the purposes of this impact study, this small group of affiliated organizations was large enough to require separate attention. For each enterprise, budget data was analyzed, carefully considering the financial flows among affiliate organizations to avoid double counting and to maintain accurate calculations.

University Medical Associates, Inc. (UMA) is an independent, not-for-profit organization incorporated in the state of Ohio. UMA membership consists of a diverse range of physicians who are faculty members of the Ohio University Heritage College of Osteopathic Medicine (the College of Medicine). Revenues collected by the corporation are derived principally from billings for medical services furnished by the corporation’s membership in private physician office and clinic settings on the campus of Ohio University and surrounding locations. In addition, operating revenues collected include those generated from contractual agreements with various healthcare providers, which provide additional teaching and service opportunities to the corporation’s membership.

The Ohio University Foundation was incorporated in Ohio in October 1945 to support the educational undertakings of Ohio University. The Foundation is authorized to solicit and receive gifts and contributions for the benefit of the University and to ensure that funds and property received are applied to the uses specified by the donor.

The various financial flows among affiliate organizations were carefully considered to avoid double counting and to maintain accurate calculations. For example, the study does not double count financial flows from OHIO to University UMA and the equivalent amount of spending from UMA out into the wider economy. Because this economic impact assessment is ultimately about Ohio University, such expenditures were apportioned back to the University and not the various enterprises. This necessarily understates the measured economic impact University-affiliated enterprises compared to that of a standalone analysis. In addition, because the purpose of the Foundation is support to the University, the decision was made to apportion its spending to OHIO or the affiliate enterprises. As a result, impact data for the Foundation is not separately detailed in the various graphics.
For this analysis, three Foundation-owned enterprises were treated separately:

1. Inn-Ohio of Athens, Inc. owns and operates a 139-room hotel and restaurant facility in Athens, Ohio, known as The Ohio University Inn.

2. Housing for Ohio, Inc. constructed and operates a 182-unit student housing facility in Athens, Ohio, currently known as University Courtyard Apartments.

3. Russ Research Center LLC was organized as a limited liability company to operate a research park consisting of 10 office and research buildings located in Beavercreek, Ohio.

Operating and capital expenditures were identified and assessed for the University and affiliated organizations. The analysis used a bill-of-goods approach to allocate University and affiliated organization spending among compensation and product and service categories that align with appropriate multipliers. Separate allocations were required for the University as a whole and for each campus for both statewide and service region impacts.

**Ohio Intercollegiate Athletics**

A separate traditional economic impact analysis of the Ohio Bobcats Athletic Department was conducted for the project. The methodology is the same basket-of-goods technique as used for the larger analysis, and includes the same sources of spending outlined above: the Athletic Department’s budgeted expenditures on employee compensation, operations, and capital; and the spending of student-athletes, visitors to athletic contests, and retired athletic department staff. In addition, various types of impacts from athletic-related activities were separately analyzed.