Measuring the Contribution of the University to the State's Economic Development: Definitions and Strategies

Roger Coupal and David T. Taylor
Department of Agricultural and Applied Economics
University of Wyoming

February 3, 1999

> "Economic development is the sustained, progressive attempt to attain individual and group interests through expanded, intensified, and adjusted use of available resources. Important elements in development include: (1) setting of goals, (2) identification of individuals and groups and their interrelationships, (3) understanding of present and future effect of decisions made now, and (4) the attempt to form new combinations of existing resources or pursuit of new resources. Economic development can also be defined as those activities which lead to greater resource productivity, a wider range of real choices for consumers and producers, and broader clientele participation in policy formation. Economic development is goal oriented change, not change for the purpose of change." – Shaffer (1989)

Economic development is a commonly heard over-arching strategy by policy-makers, businesses, and institutions in the state. It is a laudable goal for all institutions, but is mired in rhetoric and fuzzy definitions. The definition described above by Shaffer (1989) includes all activities that increase people's well-being, from increasing jobs and income to capacity increasing investments in education, research, and private capital. In short it is a multi-faceted concept that incorporates more than just market values. However people very often confuse economic development with the much more restricted definition of economic growth, and with good reason. The amorphous definition provided above can include many activities, and indeed, it is tempting to do so. But in identifying an activity's contribution to economic development we need to distinguish between the two concepts. Economic growth is the sustained increase in jobs and income in a state or region. It refers to the expansion of total economic activity within an area. Economic development can include growth objectives, but also refers to fundamental and sustainable increases in the productivity of individuals and institutions, thereby increasing the economic well-being all individuals. Economic growth is generally a short term concept while economic development is a long term concept.

A University plays a dual role in economic development. In terms of growth, its research component acts like an export base in that it brings in dollars from the Federal government and private organizations for research. The dollars are used to employ individuals and purchase goods and services from both in-state firms and out-of-state firms. The size of the impact of those research dollars is governed by the multiplier. Multipliers can measure sales impacts, income impacts, and employment impacts. The size of the multiplier depends upon the size of the economy. The larger the economy, the larger the multiplier. However, sales multipliers usually fall around 2.0 or below.

Multipliers should be contrasted with a related concept called turnover, which measures how many times a dollar exchanges hands in an economy. Estimates can range from five to eleven. Turnover rates are similar to a sales multiplier, in that they both relate to the issue of re-spending in an economy. However, turnover does not account for spending on imports, federal taxes, and savings, thus the reason it is substantially higher than a multiplier.

The second role can be described as economic capacity building. Education and research increase our knowledge base, a portion of which may be directly useful in increasing incomes to households, firms, and governments. The University's activities increase our understanding of the world around us and, add to society's human capital base. Increases in human capital add to our overall wealth. An education gives students the opportunity to acquire higher paying jobs than would otherwise be attained. Likewise applied research that spins off into new firms or into new, more efficient ways of doing business also increases society's wealth.

Measuring economic development

Households, businesses and public institutions all contribute in different ways to the overall economic development of a state. Pulver (1988) identifies five overall strategies to economic development: (1) improving the efficiency of existing firms; (2) improving the ability to capture dollars; (3) attract new basic employers; (4) encourage and facilitate new business formation; (5) increase aids received from broader governments. Educational institutions contribute to these strategies in different ways.

Improve Efficiency of Existing Firms

As firms become more efficient they become more competitive in local and national markets. Efficiency increases may be the result two types of activities: productivity changes and managerial improvements. In the first case, firms adopt new technologies that may be cost saving or output increasing. As their efficiency increases, firms' net revenues increase and stabilize. In the second case, improving managerial abilities may mean better use of existing resources and increased opportunities for expansion. Increased business revenues can mean increases in tax revenues a firm pays to the state and increases in wage payments to its employees. Programs that assist businesses in improving efficiency include educational programs to strengthen the management capacities of existing firms, business retention and expansion visitation programs, aiding firms in identifying new sources of capital, educational programs that keep managers abreast of new technologies, and improve local services that can compete in quality with imported services

Improve the Ability to Capture Dollars

In every community households and businesses control a substantial amount of funds with which purchases will be made. Every dollar spent in the state adds to the regions employment and income. However, dollars spent on imports reduce employment and income. So development of strategies that capture more dollars that otherwise would have left the region contributes to economic development, and as such programs that work toward reducing our reliance on imported goods and services contribute to the State’s economic development.

Attract New Basic Employers

Bringing in new employers whose income is generated from sales outside the state will add new jobs and more income to the State’s economy. Basic employers can include manufacturers, business services, software developers, and tourist attractions. They can be entrepreneur-owned, branch plants, or back office operations. Increasing the number of new basic employers means more income and more jobs directly and increased demand for local jobs and local goods and services.

Encourage Business Formation

There is a continuing need for new businesses to meet changing demands resulting from population growth and technological change. A new business can mean new income and employment from sales to other firms in the State, thereby capturing more dollars that may have otherwise left. Or it can mean expanded trade with regions outside the State, by increasing an existing economic base or adding a new base to the State.

Increase Aids from Broader Governments

A community may strive to get back some of the dollars taxed away by broader governmental units and if possible acquire dollars taxed in wealthier areas. Not only are state and national governments major employers, but the return large quantities of funds to local governments through grants and aids. These funds do not always come by an aid formula; often the local government must specifically request them. Social security, Medicare, and Medicaid payments are also major sources of personal income.

A Template to Report on the Contribution to Economic Development

A suggested template for reporting and classifying University activities as to their contribution to economic development is presented below. Such a classification scheme could be used to respond to questions and inquiries about what the University or Colleges are doing to contribute to economic development.

Activity	Economic Growth	Improve Efficiency of Existing Firms	Improve the Ability to Capture Dollars	Encourage Business Formation	Increase Aids from Broader Governments
Grants	Size of grant, No. of staff supported	Which Wyoming industry? No. of Employees	Which Wyoming industry? No. of Employees	Which Wyoming industry? No. of Employees	"Seed" or leverage grant? For what other sources?
Extension and outreach	No. of staff supported	No. and type of firms enrolled	No. and type of firms enrolled	No. and type of firms enrolled	Grants and aid secured by clientele.
Teaching	No. of staff supported	How does the content of the course contribute?	How does the content of the course contribute?	How does the content of the course contribute?	How does the content of the course contribute?

Summary

The Presidents "White Paper" on economic development identified three areas of leadership to facilitate the State's economic development goals: (1) Enhancement of and educated workforce; (2) Strengthening degree programs and research areas of particular relevance to economic development; (3) Supporting technology transfer and business incubation flowing from the University; and (4) Programming that supports economic and business development in partnership with other agencies. The University can contribute to economic development in several ways that would fall under the role outlined by the President:

- As a basic sector bringing in dollars from outside the region through research grants;
- Education and applied research targeted to industries in the State;
- Educational and technical assistance programming for existing businesses and new business formation.

As the definition at the beginning stated, economic development is a multi-faceted concept and Universities and Colleges can develop and build roles along several fronts.

REFERENCES

Pulver, Glen C. “Community Economic Development Strategies”. Extension Bulletin G3366. University of Wisconsin, Madison. 1988.

Shafer. Ron. Communtiy Economics, Economic Structure and Change in Smaller Commuties. [Ames, Iowa: Iowa State University Press] 1989.