

Graduate Medical Residency Economic Impact

Traditional hospital-generated cost center profit and loss statements fail to accurately reflect the full economic impact of training programs on the institution as well as the larger community.

The GME programs usually have a favorable impact on the following:

- The trainees and care teams

Physicians learn when they teach. Students ask provocative questions. Physicians who teach engage in self-evaluations, self-assessment, critical reflection and self-improvement, all of which are key principles of total quality management. Arguably, the liability exposure of teaching hospitals may in fact be lower than that of nonteaching hospitals. The attention to detail inherent in a setting where learners are present, where there is a focus on innovation, frequent use of current medical literature to guide clinical decision making, redundancy of supervision, and more frequent and thorough case reviews may contribute to a lower incidence of adverse occurrences.

- University sponsors and affiliates

Continuing medical education (CME) programs for medical staff, educational support for nursing and allied health trainees, and the introduction of new technology are all considered to be functions beyond the residency and fellowship curriculum in a teaching environment. Direct patient care services, including ambulatory teaching clinics, also expand the referral base and provide economic benefits to the sponsoring institution. Additionally, “growing your own” is often much less expensive than paying recruitment firms for each physician sought. Retaining program graduates also provides institutions with an individual of known quality who is already familiar with the local health system’s procedures, resources, and facilities.

- The local & greater community

Training program graduates who stay in the local community and become active on the medical staff of their training institution support the institution itself, support local consultants, use local facilities, provide access to care for the medically underserved, and provide overall enhancement of the patient base.

- **Total Output:** In Nevada, physicians created a total of \$7.0B in direct and indirect economic output (i.e., sales revenues) in 2012. On average, each physician supported \$1,484,565 in output.
- **Jobs:** In 2012, physicians supported 46,704 jobs (including their own), the total of direct and indirect positions. On average, each physician supported 9.89 jobs.
- **Wages & Benefits:** Physicians contributed \$4,035.1M in direct and indirect wages and benefits for all supported jobs in 2012. On average, each physician supported \$854,347 in total wages and benefits.
- **Tax Revenues:** Physicians supported \$228.5M in local and state tax revenues in 2012. On average, each physician supported \$48,379 in local and state tax revenues.

Economic Impact Analysis:

- Direct Benefits
 - Medical revenues generated in the course of patient care
 - Jobs created by the physician industry
 - Wages and benefits of physicians and employees
 - Taxes that are paid by physicians and the positions they create
- Indirect Benefits
 - These *business-to-business* effects include supplies/equipment purchased by physicians, practice administrative services, cleaning/property maintenance services, and clinical and laboratory services.
- Induced Effects
 - Arise when the employees of physicians and vendors, in turn, spend their earnings to support local businesses, which pay their employees and pay taxes.

Economic Impact Multipliers:

- Output multiplier
 - Used to calculate the total value (i.e., direct and indirect) of output created by an industry. Its value indicates the total economic output generated in an economy for every \$1 in direct output.
- Jobs multiplier
 - Used to calculate the indirect number of full-time equivalent jobs supported for every \$1M in direct output created by an industry. The sum of direct and indirect jobs is the total number of full-time equivalent jobs supported by an industry.
- Wages & benefits multiplier
 - Used to calculate the indirect wages and benefits supported for every \$1 in direct output. The sum of direct and indirect wages and benefits is the total wages and benefits supported by an industry.

The multipliers for Nevada are as follows:

- Output multiplier: 1.727, indicating that an additional \$0.73 of indirect output is generated for every \$1 in direct output.
- Jobs multiplier: 6.117, indicating that an additional 6.12 indirect full time jobs are supported for every \$1M in direct output.
- Wages and benefits: 0.257, indicating and additional \$0.26 of indirect wages and benefits is generated for every \$1 in direct output.

<u>Specialty</u>	<u># Physicians</u>	<u>Output (\$M)</u>	<u>Jobs</u>	<u>Wages & Benefits (\$M)</u>
Family Med.	683	\$761.3	6,639	\$446.8
Int. Med.	864	\$959.1	7,604	\$552.5
Pediatrics	340	\$419.5	3,209	\$214.4