

# The Economic Footprint of Indiana's Community Health Centers

---



Report commissioned by:

Indiana State Department of Health (ISDH); and  
Indiana Primary Health Care Association (IPHCA)

Study conducted by:

Indiana Business Research Center (IBRC), Indiana University Kelley School of Business

February 2009

# Table of Contents

---

**TABLE OF CONTENTS**..... 1

**EXECUTIVE SUMMARY**..... 2

**REPORT**..... 3

    Introduction..... 3

    Methodology ..... 3

    Statewide Economic Footprint ..... 8

    Economic Footprint at the County Level ..... 9

    Gifts-in-Kind..... 11

    Volunteering ..... 13

    Conclusion..... 14

## Figures

Figure 1: Comparison of Economic Multipliers by County for Community Health Centers that were Active in 2007 ..... 11

Figure 2: County-level Revenue Sources for Community Health Centers, 2007 ..... 12

Figure 3: All Income Sources for Indiana Community Health Centers, 2007 ..... 12

Figure 4: Volunteer Activity at Indiana’s Community Health Centers, 2007 ..... 13

## Tables

Table 1: Equivalent Occupations and Estimated Compensation for Volunteer Services ..... 7

Table 2: Statewide Economic Footprint of Indiana’s Community Health Centers, 2007 ..... 8

Table 3: Statewide Employment Effects of Indiana’s Community Health Centers, 2007 ..... 8

Table 4: Estimated State and Local Tax Effects of Indiana’s Community Health Centers, 2007 ..... 8

Table 5: County-level Economic Footprints of Indiana’s Community Health Centers, 2007 ..... 9

Table 6: Economic Value of Volunteering at Indiana Community Health Centers, 2007 ..... 14

# Executive Summary

---

This report presents the economic footprint of Indiana's state-supported Community Health Centers (CHCs). The study was commissioned by the Indiana State Department of Health (ISDH) and the Indiana Primary Health Care Association (IPHCA) and conducted by the Indiana Business Research Center (IBRC) of Indiana University's Kelley School of Business. In addition to the economic footprint of CHC spending on goods, services and compensation, the IBRC also estimated the value of non-monetary gifts-in-kind and CHC related volunteer service based on a survey of CHC directors.

- The **Economic Footprint** of Community Health Centers Statewide is \$195 million.
- Every thousand dollars spent by Indiana Community Health Centers generates another \$540 in additional economic activity.
- Direct spending by CHCs, together with the economic ripple effects of that spending, accounts for approximately \$9 million in state and local taxes.
- Among the 70 CHC locations that responded to the survey, **gifts-in-kind** that originate within the counties of CHC operations have an estimated value of \$9 million, about three times the amount of CHC revenue from local government sources.
- CHCs reported that their total **gifts-in-kind** have an estimated value of \$14 million, about a million dollars more than the funds appropriated (to the centers that responded to the survey) by the state legislature for CHCs in 2007.
- The estimated total value of CHC-related **volunteering** is nearly \$1 million for the 56 locations that reported volunteer activity.

# Report

---

## Introduction

Beyond their crucial role to provide accessible, high-quality health care, Indiana's community health centers (CHCs) also have a significant economic presence at both the state and county level.<sup>1</sup> The Indiana State Department of Health (ISDH) and the Indiana Primary Health Care Association (IPHCA) commissioned this study to measure the size of the economic footprint of Indiana's CHCs. The ISDH and the IPHCA engaged the Indiana Business Research Center (IBRC), a unit of the Kelley School of Business at Indiana University, to collect the data and conduct the analysis for this study. CHCs across the state supplied detailed data for the study through an on-line survey instrument.

Economic impact studies are often criticized for excessively inflating the economic ripple effects of the economic entity under study. Because such studies are often met with skepticism, the IBRC took great pains to perform a rigorous and defensible analysis. For example, this report is careful in estimating economic effects by delineating expenditures that occur within a county, within the state of Indiana and outside the state. Additionally, this report takes into account the important imputed benefits of non-monetary contributions related to CHC operations, namely, gifts-in-kind and volunteer service. Full details of the study's methodology are included within the report.

The study finds that the economic footprint of Indiana Community Health Centers is more than \$195 million in the state. Statewide, the economic impact multiplier is 1.54; every dollar of direct spending by CHCs generates another 54 cents in economic ripple effects. Counties with a greater number of CHC sites, as well as urban counties, tend to have a larger economic presence and a larger multiplier effect. CHCs are funded by both government and private income sources, but they also attract an additional \$14 million in gifts-in-kind such as patient medications and other medical supplies. Finally, CHC staff go beyond their paid roles and donate an additional 71,000 hours in volunteer service to their communities that is worth approximately \$945,000 in equivalent compensation.

## Methodology

### Survey

This report relied on a web-based survey, designed by IBRC analysts, that asked detailed questions about revenue and spending of each center, in addition to staff volunteer service and the level of gifts-in-kind. Starting in mid-November, ISDH and IPHCA officials encouraged center

---

<sup>1</sup> The Indiana State Department of Health defines community health centers as consumer-driven facilities that provide primary health care services by state-licensed professionals. These health care services must be "acceptable, accessible, affordable, appropriate and available" to community members "regardless of cultural heritage, financial status or personal circumstances."

administrators to complete the survey. Most completed it by early January. IBRC analysts followed up with administrators to resolve data inconsistencies and to ensure that separate data were received for every county. Analysts received data representing 70 out of the state's 81 sites—a response rate of 86 percent.

The survey requested financial data based on operations' county locations, using 2007 as the reference year.<sup>2</sup> CHC administrators were asked to break down expenditures spent within the county, within other parts of Indiana, and outside of Indiana. Preparing data with this geographic specificity was challenging for many centers, yet many were able to meet this task. Revenue was broken down according to six types of government sources: city and/or county, the state of Indiana (not Medicaid), Medicaid, Medicare, WIC, and Clinics funded under Sections 329 (Migrant Health Centers), 330 (Community Health Centers) and 340 (Homeless Health Centers) of the U.S. Public Health Service Act. The survey also requested data according to four types of non-governmental revenue sources, e.g., private pay and insurance, as well as the imputed value of four types of gifts-in-kind. Respondents were also asked to provide spending data on operating purchases, capital expenses, and payroll in three annual salary ranges according to three geographic distinctions—in-county, in-state and out-of-state.<sup>3</sup>

### Economic Footprint Calculations

The IBRC research team used the traditional input-output modeling approach to assess the economic linkages associated with CHC expenditures. The IMPLAN<sup>®</sup> modeling system software developed by Minnesota IMPLAN Group, Inc. has been used by more than 1,000 public and private institutions to measure the size of their economic presence in their local or state economies.<sup>4</sup> Using data from the county, region or state economy, the IMPLAN modeling system estimates the economic footprint associated with the presence of companies or public institutions.

The three types of effects estimated by the IMPLAN model—direct, indirect and induced effects—are important to understanding the nature of the economic ripple effects generated by CHCs in the local economy. Direct effects have to do with the change in dollars or employment associated with the direct spending made by a CHC to its employees and businesses from which it purchases goods and services.

Indirect effects measure the change in dollars or employment caused by the next round of spending – the spending of the business from which the CHCs buy goods and services. The manufacturer of the latex gloves purchased by a CHC buys electricity to power the plant, buys material inputs for those gloves and hires people to run the equipment. Those transactions are the indirect ripple effects associated with the CHC purchases. The degree to which the money re-circulates in the local economy—or the magnitude of the multiplier—is determined by whether the manufacturer is located within the geographic unit of analysis. CHC administrators were asked about the location of their vendors because this is critical in determining the local economic ripple effects.

---

<sup>2</sup> Some centers were not able to provide information based on a calendar year, so they were allowed to use the most recent one-year period available, such as the July 2007-June 2008 fiscal year.

<sup>3</sup> The three salary categories—less than \$50,000, between \$50,000 and \$100,000, and more than \$100,000—are based on the general expenditure profile of these income brackets. For example, those in higher income brackets pay a greater percentage of their income in taxes and tend to save more.

<sup>4</sup> More information is available on the IMPLAN Web site at:

[http://implan.com/index.php?option=com\\_content&task=blogcategory&cid=83&Itemid=28](http://implan.com/index.php?option=com_content&task=blogcategory&cid=83&Itemid=28)

Finally, induced effects—whether in dollars or employment—reflect changes in spending that result from the household income of employees (of CHCs or their suppliers) that, in turn, change as output changes along the economic supply chain. For example, as CHC service output increases, the output of the supply chain increases correspondingly. Those output changes result in changes in household income and spending. Induced effects represent the change in overall economic output and employment resulting from those household spending changes.

The total of all economic effects is the size of the economic footprint and is the sum of the direct, indirect and induced effects. The IMPLAN model also tracks the tax effects associated with all the transactions and economic activity associated with the direct and ripple effects. For example, household spending at retailers generate state sales tax. In addition, those retailers also pay property taxes to local governments. As a result, this analysis was also able to estimate the state and local government tax flows.

The other reported measure is the multiplier. The multiplier is the magnitude of the economic response in a particular geographic area associated with a change—either an increase or a decrease—in the direct effects. For example, every dollar expended by CHCs on purchases and payroll is estimated to be multiplied by 1.54 within the state of Indiana. Another way to look at it is that every dollar spent by a CHC produces, on average, another \$0.54 cents in economic activity in the state.

Data limitations required IBRC analysts to make a few adjustments to the modeling process. The survey asked centers to report their expenditures separately for three geographic options—spending within their county of operation, spending in other parts of Indiana and spending outside the state. Many centers did not provide their data at this level of detail. Given these data constraints, IBRC analysts used averages based on those centers that did provide the required breakouts to estimate the geographic distribution of CHC vendors when necessary.

In addition to estimating the economic footprint county by county, the IBRC also estimated a statewide economic footprint. About 14 percent of the centers; however, did not respond to the survey, so IBRC analysts estimated the expenditures for those centers. The data for one site in Marion County was estimated based on data received by the other 21 sites in that county. Estimates for sites in two other counties—St. Joseph and Tippecanoe—were derived by averaging the survey data received from sites within these counties. Finally, there were seven counties for which no data were received at all. In these cases, IBRC analysts estimated the economic footprint based on similar types of centers within counties of approximately the same demographic dimensions.<sup>5</sup>

Finally, the direct and economic ripple effects are presented for the statewide economic footprint, but not for each county. The expenditures and revenues for a particular center or group of centers cannot be determined in the statewide numbers. For one small center in a small county, the revenues and expenditures could be ascertained by the “direct effects” number. As a result, only the total of direct and ripples effects—the economic footprint—is disclosed by county.

### Gifts-in-Kind Calculations

In addition to estimating the economic ripple effects of CHCs, the IBRC analysis imputed the value of gift-in-kind donations. Gifts-in-kind of patient medications, medical devices, clinical medical

---

<sup>5</sup> Supplemental data were used in these cases from STATS Indiana: <http://www.stats.indiana.edu/>

apparatuses and non-medical supplies allow CHCs to provide a level of client services above and beyond their dollar-and-cents revenues and expenses. In a sense, state appropriation and private foundation funding leverage additional support in the form of gifts-in-kind. If the centers did not exist, there would be no gift-in-kind support.

If these donated items were produced locally or within the state, one could argue that there would be economic ripple effects associated with the household spending for those employees producing the gift-in-kind goods and producing the inputs for the gift-in-kind goods. (In other words, one could argue that if the locally- or state-produced gifts-in-kind ceased to exist, then the household spending by the employees making the gifts-in-kind would also disappear.) In order to make a firm estimate of the economic ripple effects associated with gifts-in-kind; however, one would need to know both the location of the manufacturer donating the item and the precise nature of the items donated. Gurneys, for example, have a different supply chain profile than tongue depressors and, as a result, a different multiplier. Without the necessary information, the IBRC analysts did not estimate the ripple effects of gifts-in-kind.

In addition, IBRC analysts did not extrapolate a gifts-in-kind value for centers that did not complete the CHC survey, assuming, in effect, that a zero value for this category on the survey reflected no gifts-in-kind for a particular center. Therefore, the gift-in-kind totals are conservative estimates.

### Value of Volunteering

Not only do CHCs provide health services for many that might not otherwise receive healthcare, CHCs also “give back” to their communities and the state by those who volunteer at the centers. The survey completed by CHC administrators asked them to determine the average monthly volunteer service hours of their staff and affiliated volunteers in six categories of service. CHCs varied greatly in the number of reported volunteer hours. As a result, the average number of volunteer hours for a typical CHC was determined after removing the centers that reported an extremely high number of volunteer hours.<sup>6</sup> The statistical outliers having been removed, monthly averages<sup>7</sup> were converted to an annual basis.

In order to estimate the value of volunteering, one must assign a corresponding wage for each occupational equivalent.<sup>8</sup> The assignment procedure was done using the Standard Occupational Classification (SOC) issued by the U.S. Department of Labor, and the median wages reported for occupations in Indiana based on U.S. Bureau of Labor Statistics (BLS) data.

To minimize the possibility of overstating the value of volunteering, each volunteering category was matched to an occupational category and the lowest wage earned for a particular occupation within that occupational category was selected for the dollar value of a volunteer hour. A list of volunteer roles and their equivalent occupations and compensation is shown in Table 1. Where roles were unknown, an activity was matched with the “personal care and service occupation” group whose

---

<sup>6</sup> Reported figures that were more than two standard deviations above the mean (within the top 2.5%) were considered outliers.

<sup>7</sup> The average number of hours for general administrative support was not statistically significant, so these estimates were combined with those for the “other” category.

<sup>8</sup> Scholarly support for such an approach comes from: Brown, Eleanor. "Assessing the Value of Volunteer Activity." *Nonprofit and Voluntary Sector Quarterly* 28, no. 3 (1999): 3-17. Currently the Points of Light Institute uses a similar strategy for their on-line resource at: <http://www.pointsoflight.org/resources/research/calculator.cfm>

median wages were only \$9.11 per hour in Indiana.<sup>9</sup> Furthermore, only legally required benefits (such as social security), which typically amount to only 9.4 percent of total compensation, are added to wages for the total compensation figures used here.<sup>10</sup>

**Table 1: Equivalent Occupations and Estimated Compensation for Volunteer Services**

Volunteer Service Categories (examples of role)	Title of Equivalent Occupation	SOC	Median Hourly Wage	Legally Required Benefits	Total Hourly Compensation
Advanced Medical Care (doctor, nurse practitioner)	Physician Assistants (incl. Nurse Practitioner)	29-1071	\$34.64	\$4.61	\$39.25
Basic Medical Care (blood collection assistant, medical student)	Medical assistants	31-9092	\$12.61	\$1.68	\$14.29
Mental/Social Care (counselor, social worker)	Counselors, all other	21-1019	\$17.19	\$2.29	\$19.48
Executive/Financial Management (accountant, board member)	Social and community service managers	11-9151	\$21.41	\$2.85	\$24.26
General Administrative Support (secretary, flyer distributor)	Office clerks, general	43-9061	\$10.73	\$1.43	\$12.16
ALL OTHER (school assistant, neighborhood cleanup)	Personal care and service occupations	39-0000	\$9.11	\$1.21	\$10.32

Note: Benefits that are not legally required have been removed from the total compensation figures presented above. Typically, wages (70.6%) and legally required benefits (9.4%) amount to a combined 80% of total compensation for service-related occupations (by Standard Occupational Classification), according to the BLS Employment Cost Index (December 2006).

Source: IBRC, using May 2007 Indiana wage data and the December 2006 Employment Cost Index from the U.S. Department of Labor, Bureau of Labor Statistics

The number of volunteer hours for each type of service was multiplied by the equivalent compensation to determine the value of volunteering for that activity. The average number of volunteer hours for a typical CHC was multiplied by 56, the number of centers that reported volunteer activity. To further ensure the estimates do not overstate volunteering benefits, IBRC analysis acknowledged that not all services provided by volunteers would be paid for if the service were not free. With this in mind, the study assesses the economic value of CHC volunteering as 73 percent of the value of total compensation. This procedure follows the so-called factor of proportionality between market price and client value suggested in published research.<sup>11</sup>

<sup>9</sup> Current BLS wage data is available at: [http://www.bls.gov/oes/current/oes\\_stru.htm](http://www.bls.gov/oes/current/oes_stru.htm)

<sup>10</sup> The most recent BLS Employment Cost Index is available at: <http://www.bls.gov/ncs/ect/home.htm>

<sup>11</sup> For more information, please see the article by Eleanor Brown mentioned earlier as well as the article she cites by Michael P. Murray: i) Brown, Eleanor. "Assessing the Value of Volunteer Activity." *Nonprofit and Voluntary Sector Quarterly* 28, no. 3 (1999): 3-17; ii) Murray, Michael P. "How Inefficient Are Multiple in-Kind Transfers?" *Economic Inquiry* 32 (1994): 209-27.

## Statewide Economic Footprint

Indiana's Community Health Centers had a total 2007 economic footprint of \$195 million. A majority of this sum, \$126 million, is the result of direct spending of CHCs (see Table 2). The economic ripple effects total \$68 million. For every dollar spent directly by the average CHC there is an additional 54 cents of economic activity within the state.

**Table 2: Statewide Economic Footprint of Indiana's Community Health Centers, 2007**

	<b>Direct Effects</b>	<b>Ripple Effects</b>	<b>Total</b>
Purchases	\$36,478,880	\$ 28,838,205	\$65,317,084
Construction	7,179,714	\$ 5,593,336	12,773,050
Payroll	82,422,866	\$ 34,074,000	116,496,865
<b>All</b>	<b>\$126,081,460</b>	<b>\$ 68,505,541</b>	<b>\$194,586,999</b>

Source: IBRC, using IMPLAN model results from data obtained through the Community Health Center Survey. The estimated economic impact of CHCs also generates 1,446 jobs across the state, including 861 jobs directly and an additional 586 jobs through economic ripple effects (Table 3).

**Table 3: Statewide Employment Effects of Indiana's Community Health Centers, 2007**

	<b>Direct Effects</b>	<b>Ripple Effects</b>	<b>Total</b>
Purchases	256	247	502
Construction	73	49	122
Payroll	532	290	822
<b>All</b>	<b>861</b>	<b>586</b>	<b>1,446</b>

Source: IBRC, using IMPLAN model results from data obtained through the Community Health Center Survey. CHCs spending and the economic ripple effects of that spending also generate a wide range of tax revenues for state and local governments, primarily through indirect business taxes.<sup>12</sup> Table 4 shows that these taxes amount to a total of over \$9 million.

**Table 4: Estimated State and Local Tax Effects of Indiana's Community Health Centers, 2007**

	<b>Total</b>
Purchases	\$2,418,597
Construction	492,445
Payroll	6,100,294
<b>All</b>	<b>\$9,011,336</b>

Source: IBRC, using IMPLAN model results from data obtained through the Community Health Center Survey

<sup>12</sup> According to the IMPLAN model, indirect business taxes "include taxes on sales, property, and production, but exclude employer contributions for social insurance and taxes on income." See: [http://implan.com/index.php?option=com\\_glossary&func=view&Itemid=108&catid=13&term=Indirect+business+taxes+\(IBT\)](http://implan.com/index.php?option=com_glossary&func=view&Itemid=108&catid=13&term=Indirect+business+taxes+(IBT))

## Economic Footprint at the County Level

At the county level, the economic footprints of CHCs vary according to the relative number, size and spending of operations within each county. Among the CHCs that operate in 40 Indiana counties, those in Marion County have the largest economic footprint. This should come as no surprise given the 22 sites that operate within this highly-urban county that includes Indianapolis.<sup>13</sup> Table 5 shows that CHCs within Marion County had an economic footprint of \$35 million, accounting for 233 jobs and \$1.6 million in state and local taxes. (The IMPLAN model generates aggregate estimates for state and local taxes for several tax categories; in other words, the model does not break down state from local taxes.) Typically, counties with fewer operating centers also have a smaller economic footprint.

**Table 5: County-level Economic Footprints of Indiana's Community Health Centers, 2007**

County	Economic Footprint	Employment	State and Local Taxes
Allen	\$4,553,994	34	\$199,866
Bartholomew	65,459	1	2,549
Boone	138,714	1	5,608
Cass	745,795	5	26,213
Clark	1,037,310	8	44,086
Clay	347,691	2	11,434
Delaware	3,367,334	27	149,457
Elkhart	3,219,154	24	124,690
Floyd	1,343,329	12	46,550
Grant	832,566	7	32,347
Henry	124,573	1	4,828
Howard	1,800,782	12	67,549
Jackson	1,021,707	7	40,110
Johnson	1,573,998	11	72,431
Lake	5,846,518	45	254,830
La Porte	562,261	4	25,647
Lawrence	309,389	2	12,431
Madison	1,389,042	11	58,770
Marion*	35,663,313	233	1,624,799
Monroe	363,289	3	14,864
Ohio	377,524	4	12,415
Owen	83,628	1	2,343
Parke	378,402	2	12,044
Pike	255,914	1	7,182
Porter	5,661,423	38	240,627
Pulaski	91,885	1	3,076

<sup>13</sup> One of the 22 Marion County CHC sites did not complete the survey and is not included in these county-level estimates. However, estimates for this missing site were included within the statewide figures presented earlier.

## Economic Footprint of Indiana's Community Health Centers

<b>County</b>	<b>Economic Footprint</b>	<b>Employment</b>	<b>State and Local Taxes</b>
Randolph	1,538,291	9	52,022
Rush	613,397	3	20,625
St. Joseph*	5,160,293	39	224,067
Switzerland	125,929	1	3,327
Tippecanoe*	2,765,262	19	113,105
Vanderburgh	3,303,562	25	138,317
Wayne	1,885,083	16	75,458

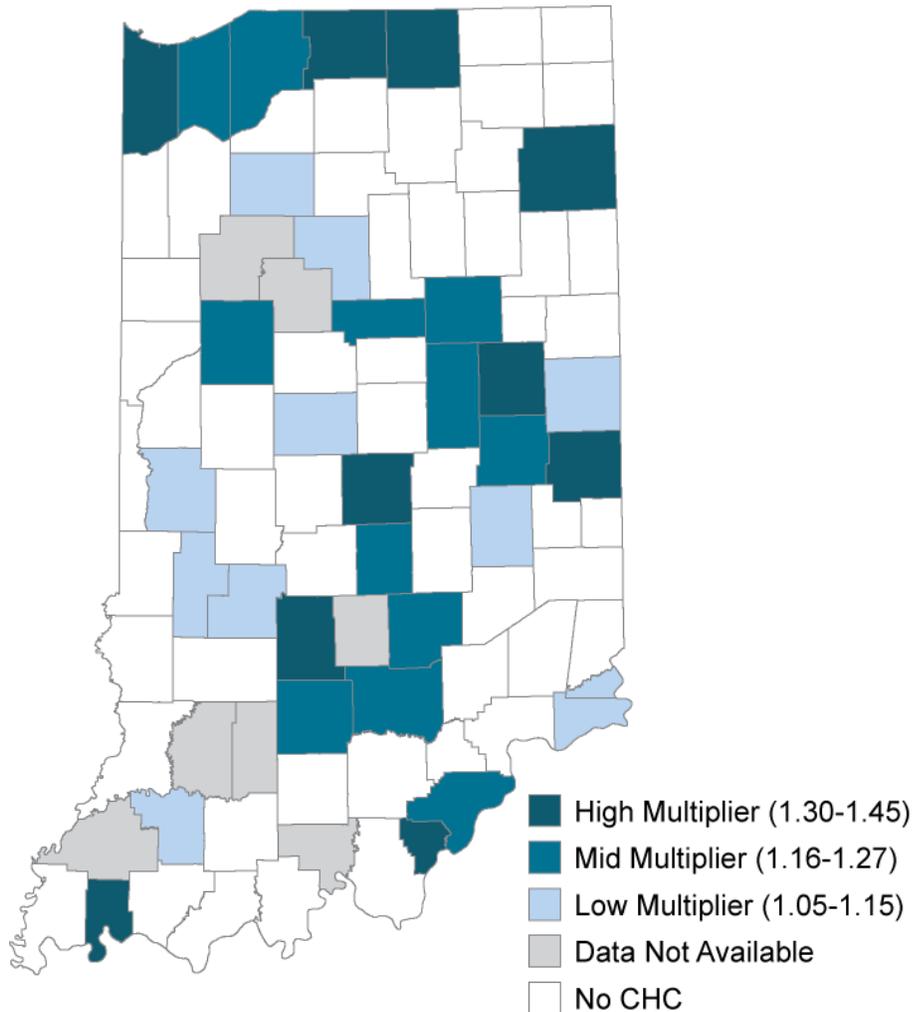
Note: The figures for Marion, St. Joseph and Tippecanoe Counties do not include estimates for a few centers that did not complete the Community Health Center Survey. Additionally, community health centers in Brown, Carroll, Crawford, Daviess, Gibson, Martin and White counties did not complete the survey.

Source: IBRC, using IMPLAN model results from data obtained through the Community Health Center Survey

Typically, counties with larger economies will also have larger multipliers. In the same way, the state as a whole has a larger multiplier than any one county. This is because the rate of economic leakages decreases as the economic unit of analysis increases. An economic leakage occurs when a firm, household or any other economic entity like a CHC must purchase a good or service outside the geographic unit of analysis. The money leaks out of the local economy. A CHC in a small county probably has to source a majority of its supplies from firms in larger metro areas. A CHC in Marion County, however, probably has most of the vendors it needs within the immediate area.

As one would expect, Figure 1 shows that Marion County (with 22 CHCs) and St. Joseph County (with six CHCs) are among the 10 centers where each dollar of CHC spending generates an additional 30 cents or more of spending in the local economy. However, even though Allen County has only one CHC, it is also among this group of counties with a greater multiplier. This suggests that a relatively high proportion of this CHC's purchases are sourced in Allen County and that a relatively high proportion of its staff live in the county.

**Figure 1: Comparison of Economic Multipliers by County for Community Health Centers that were Active in 2007**



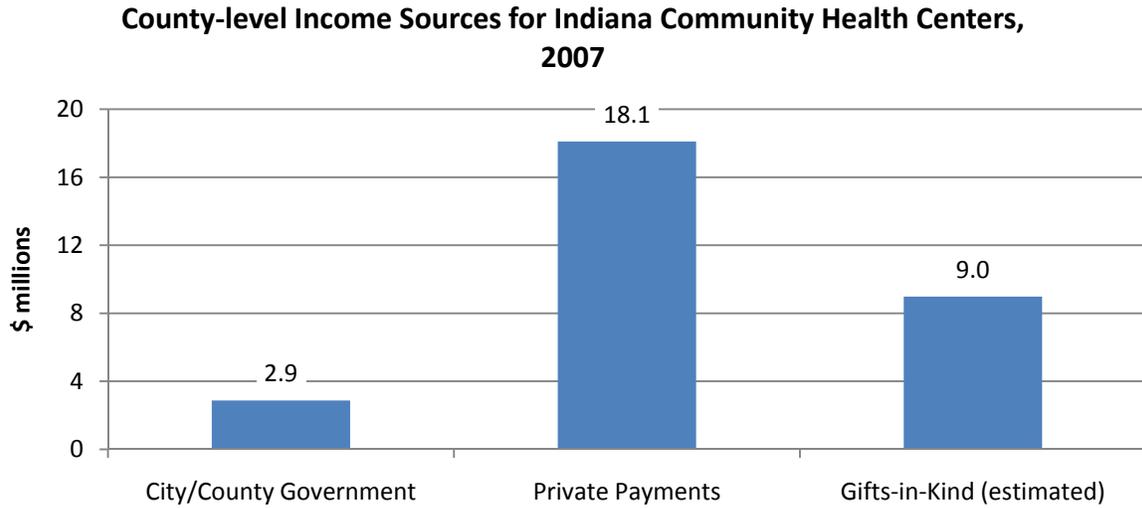
Note: Figures for Marion, St. Joseph and Tippecanoe counties do not include estimates for a few centers that did not complete the Community Health Center Survey. Community health centers in Brown, Carroll, Crawford, Daviess, Gibson, Martin and White counties did not complete the survey.

Source: IBRC, using IMPLAN model results from data obtained through the Community Health Center Survey

## Gifts-in-Kind

CHCs receive government funding and revenue from private sources for their operating expenses, but CHCs are beneficiaries of gifts-in-kind from private companies and non-profit organizations. CHCs reported they receive an estimated \$9 million in non-monetary donations from local (within county) sources. For the centers that completed the survey, these gifts-in-kind are equal to about half of the \$18 million they receive from private payments and three times as much as they receive from local governments (Figure 2).

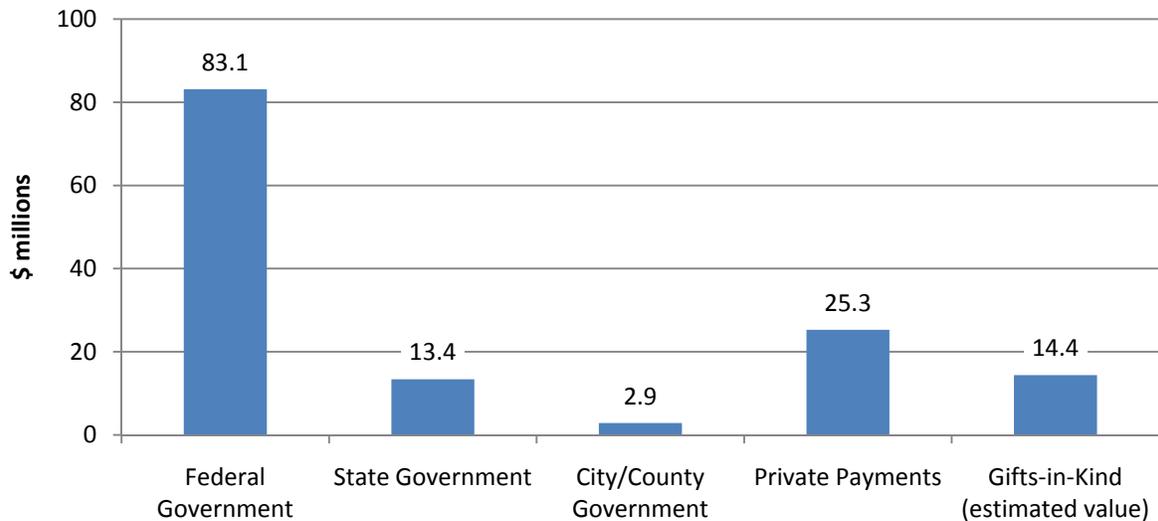
**Figure 2: County-level Revenue Sources for Community Health Centers, 2007**



Note: These figures reflect only the totals reported by centers that completed the survey  
 Source: IBRC, using financial data from the Indiana Community Health Center Survey

Considering income from all geographic sources, the reported value of gifts-in-kind is more than \$14 million, 11 percent the value of all monetary income sources (\$125 million). Figure 3 illustrates that the value of gifts-in-kind contributions is slightly higher than state funding (\$13 million) reported by centers that completed the survey. This suggests that every dollar appropriated by the state is matched by \$1.07 in non-monetary donations.

**Figure 3: All Income Sources for Indiana Community Health Centers, 2007**



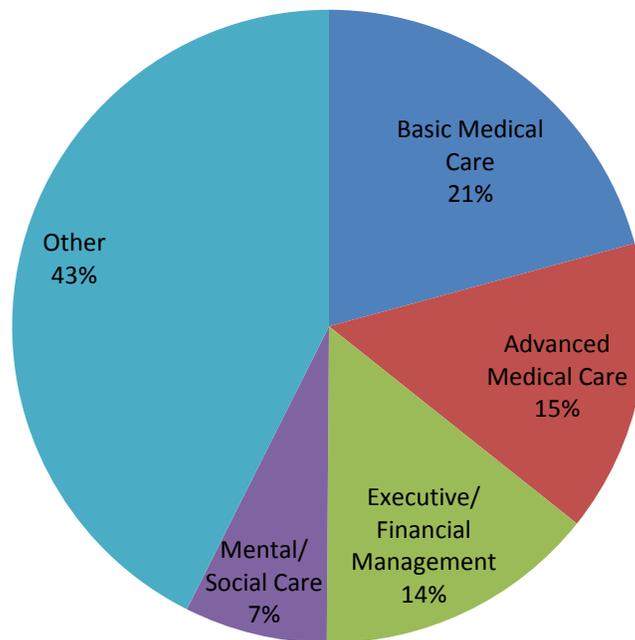
Note: These figures reflect only the totals reported by centers that completed the survey  
 Source: IBRC, using financial data from the Indiana Community Health Center Survey

## Volunteering

As paid employees, CHC staff help Indiana residents by attending to many of their medical needs. Volunteers working at CHCs augment the services the centers provide by giving their time and energy without compensation. It would be fair to say that these volunteers “give back” to their communities and the state by donating their skills.

Figure 4 shows that the most popular volunteer activities reported by CHC staff were basic medical care (21% of all volunteer hours) and advanced medical care (15%). Together these medical activities amounted to over 25,000 hours of annual volunteer service. Not all volunteer service, however, is through direct medical tasks. Staff and volunteers also serve local communities by giving leadership advice through advisory boards and providing financial services that total another 10,000 hours of unpaid service each year.

**Figure 4: Volunteer Activity at Indiana’s Community Health Centers, 2007**



Source: IBRC, using volunteer data from the Indiana Community Health Center Survey

Table 6 summarizes the estimated value of CHC volunteering activities for those centers that reported volunteer activity. The conservative estimate of the value of these services is \$945,000.

**Table 6: Economic Value of Volunteering at Indiana Community Health Centers, 2007**

<b>Volunteer role</b>	<b>Total Annual Hours</b>	<b>Equivalent Hourly Compensation</b>	<b>Total Equivalent Compensation/Year</b>
Advanced Medical Care	10,655	\$39.25	\$418,234
Basic Medical Care	14,831	\$14.29	\$211,925
Mental/Social Care	5,208	\$19.48	\$101,445
Executive/Financial Management	10,287	\$24.26	\$249,563
Other	30,402	\$10.32	\$313,833
<b>TOTAL</b>	<b>71,383</b>		<b>\$1,295,001</b>
<b>Value of Volunteering (using 73% price-to-client value ratio)</b>			<b>\$945,351</b>

Note: Equivalent Hourly Compensation is based on wages and benefits of similar occupations.  
 Source: IBRC, using volunteer data from the Indiana Community Health Center Survey and wage data from the U.S. Bureau of Labor Statistics (BLS)

## Conclusion

Statewide, the economic footprint of Indiana Community Health Centers is more than \$195 million. The range of the economic presence of CHCs in Indiana counties varies greatly, from a high of \$35 million in Marion County to a low of \$65,000 in Bartholomew County. Statewide, the economic impact multiplier is 1.54. Every dollar of direct spending by CHCs generates another \$0.54 in economic ripple effects in the state.

CHCs are funded by government and private sources. In addition to dollars of revenue, CHC also receive gifts-in-kind of medications and medical supplies that augment their resources and abilities to provide client services. These gifts-in-kind totaled an additional \$14 million in 2007, exceeding the amount of state operating appropriations. Finally, volunteering activities at CHCs totaled 71,000 hours of service annually, with an equivalent value of nearly \$1 million.

In many ways, measuring the economic impact of a business or institution is an exercise in keeping track of good money (monetary flows into a region), bad money (monetary flows out of a region) and neutral money (transactions that re-circulate money within a region). Another way to view good money is as an injection into a region’s economy. Tourism is the classic example. Another way to view bad money is a leakage from a regional economy. Purchasing oil from overseas may be a good example of this concept. The presence of a business or institution that helps to stop leakages, or retain economic activity, is said to have an import-substitution effect.

The treatment of state support is a thorny issue in measuring economic impact. The most conservative approach would be to remove the state appropriation portion from the CHC operating budget because these funds would either be returned to Indiana taxpayers or redirected to other state programs and projects. In other words, the state support wouldn’t disappear if the CHCs

disappeared. State support would go somewhere else in the state economy, in contrast to the funding from outside the state. The IBRC analysts have kept all funds in the footprint calculation, but note that state appropriations are “neutral.” Because “impact” money is mixed with “neutral” money, the IBRC uses the term economic footprint to include all categories of monetary flows— injections, retention and recirculation.

As mentioned above, economic impact studies have many skeptics and critics.

“If [university] economic impact studies were conducted at the level of accuracy most institutions require of faculty research, their claims of local economic benefits would not be so preposterous, and, as a result, trust in and respect for higher education officials would be enhanced.” (Siegfried, Sanderson and McHenry, July 2007)

Within the constraints of data availability, the IBRC pursued a path that advances the analytical and methodological rigor used to conduct the CHC study, even if the resulting estimates may be lower and may not be comparable with other impact studies on an apples-to-apples basis. The IBRC took the position that future economic impact studies would, over time, embrace the criticisms of Siegfried et al.<sup>14</sup> and wanted to contribute to advancing the state of the art.

Community health centers play a crucial role in providing accessible health care. Indiana’s CHCs also have a significant economic footprint at both the state and county level. This study has made a conservative and defensible estimate of that economic significance in terms of dollars and jobs, as well as in local and state taxes. Given that state appropriations are able to leverage additional resources—gifts-in-kind and volunteer service—that equal if not exceed those appropriations, there is no hyperbole in the statement that community health centers are a great value.

---

<sup>14</sup> John A. Siegfried, Allen R. Sanderson, Peter McHenry. “The economic impact of colleges and universities,” *Economics of Education Review* 26 (2007): 546–558.

## Appendix: Survey for Community Health Center Directors

Survey available at: <http://www.ibrc.indiana.edu/chc/>

- I.** The goal of this question is to determine the degree to which your center’s funding is from local, state or out-of-state sources. Please report your center’s **total annual income (or budget)** by funding source. The following categories of government and non-government sources are similar to the IPHCA data sources. Please calculate the value of gifts-in-kind (e.g., drugs or medical apparatus) as what your center would normally have to pay for the item (wholesale cost if applicable). “City/County” refers to the county in which your center is located, even if your center is one of a larger group of community health centers operating in several counties. If in doubt about the geographic location of a non-government source, please enter the value in the Indiana column (column 2).

<b>Annual Income by <u>Government</u> Funding Source</b>	City/County (1)	State of Indiana (2)	Federal (3)
Medicaid	\$	\$	\$
Medicare			
WIC			
329/330/340			
State of Indiana (not Medicaid)			
City or County			

<b>Annual Income by <u>Non-Government</u> Funding Source</b>	Within City/County	Indiana (outside your county)	Outside Indiana	TOTAL
Private Pay	\$	\$	\$	\$
Private Insurance				
Private Foundations				
Other Money Donations				
Gifts-in-Kind: patient medications				
Gifts-in-Kind: patient medical devices				
Gifts-in-Kind: clinic medical apparatus				
Gifts-in-Kind: clinic non-medical supplies				
<b>TOTAL from all sources</b>				

Economic Footprint of Indiana’s Community Health Centers

**II.** The goal of this question is to determine the degree to which your center’s expenditures flow to local, state or out-of-state vendors and employees. Please estimate your **total annual expenditures** in the following broad categories. Please distinguish among vendors or employees within your county, within Indiana and outside Indiana. If in doubt about the location of a vendor, enter the value in the Indiana column (column 2).

<b>Annual Expenditures</b>	Spent within your county (1)	Spent in Indiana (outside your county) (2)	Spent outside Indiana (3)	TOTAL (4)
Purchases (non-payroll)	\$	\$	\$	\$
Capital or Construction (average over the last five years)				
<b>Payroll</b>	Employees living in your county	Employees living in Indiana (outside your county)	Employees living outside Indiana	TOTAL
Total Compensation for all employees <b>earning less than \$50,000</b>	\$	\$	\$	\$
Total Compensation for all employees <b>earning between \$50K and \$100K</b>				
Total Compensation for all employees <b>earning over \$100,000</b>				
<b>TOTAL</b>				

**III.** Please enter the **total hours of volunteer or unpaid service** that members of your center provide in a **typical month**. This includes all unpaid service of your regular staff and trainees, as well as volunteers and medical school residents affiliated with your center. Please separate the volunteering activity according to type below.

<b>Volunteer Service Categories (examples of role)</b>	<b>Hours in a Typical Month</b>
Advanced Medical Care (doctor/nurse practitioner)	
Basic Medical Care (blood collection assistant, medical student)	
Mental/Social Care (counselor, social worker)	
Executive/Financial Management (accountant, consultant, board member)	
General Administrative Support (secretary, receptionist, bookkeeper)	
ALL OTHER	
<b>TOTAL</b>	