



October 2014

Wabash County Government

How do economists view government? Everyone thinks of economists studying markets – and that they do – but they have much to say about government.

Just the definition of government is not as easy as it might seem. A number of economists broaden the concept of government to include those private, usually non-profit, institutions providing solutions that in other instances would require public programs. Examples would include charities, the transfer of blood by the Red Cross, and the regulation of medical schools by the American Medical Association. Locally organizations such as Good Will, Living Well (featured in our July 2013 issue available at www.Manchester.edu/WCER), and other charities alleviate certain aspects of poverty.

In this piece we will work with the narrower definition familiar to everyone.

There are two sides to the study of the economics of government – revenues and expenditures. In this report we will focus on revenues or taxes. In a future issue we will consider expenditures.

Before delving into the specifics of Wabash County, it is worthwhile to establish the reasons economists give for the existence of government. These are quite different than the political and legal justifications.

The arguments for the economic basis of government have varied through time. Adam Smith – the founder of modern economics with his *Wealth of Nations*, published in 1776 – listed education, defense, transportation systems, ship building, and a laundry list of other activities appropriate for government. He established a theme that would be followed until the

present day – governments should step in when markets fail to work properly. Smith’s market failures fall into two categories: public goods and externalities.

Public goods differ from private goods in three important ways. One is they tend to be what economists call non-rivalrous. In essence many people can enjoy the same good at the same time. A city park is an example. My presence in the park does not prevent someone else from enjoying its beauty. Who should pay and how much is not easily established. Therefore cities like Wabash maintain public parks and charge nothing for their use.

The second quality economists call non-exclusive. Certain goods or services, once produced, present extraordinarily high costs of preventing non-payers from consuming. Residential roads serve as an example. Once built it is prohibitively expensive to keep people who have not paid from using them. Imagine the cost of toll booths at the end of each driveway. The city and county take on the burden instead of pursuing such nonsensical market approaches.

Non-exclusiveness leads to a stumbling block when depending on markets to provide the good. This problem is that of the free-rider. If enough people are donating to provide some quantity of the good – say are privately building some streets – others will enjoy the good without contributing. For example, it is estimated that of all the listeners to public radio, only one in seven pledges any money. Six out of seven people is listening free of charge.

Because of free-riders the total revenues available for financing the public good amount to less than the ideal. Too little of the good is produced.

The last feature of public goods is how they contrast with private goods when it comes to the relationship of price and quantity. With a private good, the market provides a price, and each consumer can choose a different quantity that makes him or her happiest. With a public good a single quantity is provided which each individual values differently. The extent of the parks and the roads are fixed. How much each person values them varies.

In an ideal world, each person would be charged the exact amount he or she values the good. Finding this amount is difficult and expensive. (Though economists have come up with some clever ways to make people confess the value they place on the good.) Instead a society relies on donations, taxes, and fees to provide a more appropriate level of the public good.

Thus we have one of the roles of government – provide public goods that markets would either not produce or through haphazard donations would produce in too limited a quantity.

A second market failure according to Smith is one of externalities. When one person or firm imposes costs on or provides benefits to others, economists say there is an externality. As an example, consider street trees. Most people find a city filled with large street trees more appealing than one with naked sidewalks. Everyone benefits without paying the home owner for the costs of

planting and maintaining his or her trees. Without the compensation from all those enjoying the trees, the home owner provides too few street trees. The only feasible way to remedy the situation is for government to step in.

In the nineteenth century the Utilitarians,



principally Jeremy Bentham and John Stuart Mill, presented arguments for a much more equal distribution of income and wealth. This introduced the notion of government as the redistributor of economic well-being. Based on their philosophy, governments implement anti-poverty programs, supply student loans, and utilize

graduated income taxes among many policies.

The redistributive portion of local government stems mostly from the tax side. Though there are many fee for service charges, most of the county revenue arises from income and property taxes. The absolute burden of these taxes falls most heavily on the economically well off, but the debate keys on what are the appropriate percentages of income and property values should constitute the tax.

The county income taxes are flat rates – no brackets – of the state's adjusted gross income. This implies neither upward (regressive taxes) nor downward (progressive taxes) redistribution between high and low income families.

The property tax is slightly different. First, it is a tax on wealth which is the accumulation of the saved portions of past incomes. Because property is concentrated among the wealthiest members of our society, the property tax has some progressive qualities.

Property taxes quite frequently arise as a topic of debate in the legislature as well as in the public sphere. The property tax presents a number of theoretical and practical problems.

At the theoretical level is the issue of what types of properties should be included. For instance, should property that is used for earning income be treated differently than property that is purely for consumption. As an example, should farm land be taxed the same as residences? If not so, then what about the self-employed person working out of her home? Should she be taxed at

the lower rate? These are not easy questions to answer.

On the practical side is the difficulty of accurate assessments on which to base the taxes. Assessment can be determined using sale price, current market value, or replacement cost. Sale price locks families into a property tax rate at the time of purchase, but current market value has to be regularly updated and this means families face fluctuating rates, and replacement cost often inflates older homes compared to newer. (It is more costly to replicate a 1920s home than to rebuild a ranch house using current techniques.)

Economists would lean toward current market value as the basis of property taxes as it represents what the market considers the contribution of the property to the economy. This assumes equity issues are not important. A retired couple having lived in their house for sixty years may all of a sudden owe a larger property tax than they can afford. Even though they have paid off their house, they are forced to move. Most of us would question such a policy on fairness grounds even though the economist argues it is efficient.

The positive side to the property tax is that it is somewhat progressive – wealthier households pay a higher percentage than the less well off. Many economists have become increasingly alarmed by the rise of inequality in the country with mainstream economists such as Alan Greenspan (former chair of the Federal Reserve) and wealthy Americans like Warren Buffet calling for policies to even the distribution.

To the degree inequality is a concern, the property

tax can be viewed contributing to the reduction of inequality. When we look at the specifics of Wabash County's taxes, we will find these ethical issues embedded in the ways revenues are generated.

A third reason for a government to intervene is due to nation wide economic woes. The 1920s depression in England and the Great Depression in the United States caused John Maynard Keynes to write the *General Theory*. He showed that even when individual markets were working, the economy could lag as a whole with persistent high rates of unemployment. He pointed to the federal government and the central bank as the institutions in the best position to solve the bulk of the problem.

Though we must rely on national policies to reduce the core of unemployment, local policies have a perceptible effect. Tax abatements by the city and subsidies are offered to attract employers who in turn increase employment levels. The additional jobs create a ripple effect in that new workers increase overall demand which leads other businesses to increase their number of employees.

It is during recent decades, through the work of economists such as George Akerlof and Joseph Stiglitz, that economists have realized there is a more extensive role for government. Their work demonstrates every market fails in some way due to inadequate information and the “irrationality” of people.

A little history is in order.

In the late '50s and early '60s economists isolated

the qualities a market must possess to work efficiently. If all markets work efficiently the economy is producing at capacity and what it is producing is the combination of goods and services most desired. Initially when economists looked at the list of qualities, they felt optimistic that reality and theory were not too far apart.

Starting in the late '70s this changed. As economists investigated two particular qualities needed for these perfect markets, they found reality was nowhere close to theory. One of these had to do with the assumption that people were rational, and the other dealt with the requirement that information was complete.

Take rationality. As an example, a rational person would not be affected by the quality or frequency of an ad. In a rational world an ad would elicit a single decision – at that price I want it versus at that price I don't want it. Once the first ad was seen and the decision was made, seeing the ad again or seeing a cleverer ad for the product should have no impact. If ads generate desire, and a person consumes more than he or she would otherwise, then the market has been distorted.

The other major distortion results from the lack of information. For markets to work perfectly everyone and every firm needs complete information. To have complete information boggles the mind. The requirement means that every individual understands the details of every product he or she desires, knows which store is offering the lowest price, and understands perfectly what will happen to prices in the future.

With perfect information, no one would need a

lawyer for legal advice. Courts would be obsolete. A diagnosis by a doctor would be redundant. On the production side of the economy every firm would instantly know the best technology to use – one firm could never get ahead of other firms.

Work done in the 1960s made economists even more pessimistic that reality resembled perfect markets. One could argue that most markets are fine, and government can intervene in the few that are flawed. However, it doesn't work that way. If one market is imperfect, then all markets are imperfect.

The logic is as follows. Suppose only one market in the economy is a monopoly, and all the rest of the markets are working perfectly. Monopolies always distort a market away from the ideal. The monopolist produces too little and sets price too high. Because they are producing less, they hire fewer workers.

How do people respond to the monopolist's price? They buy less. But this frees up money to be spent in all the other markets. All the other markets are now over producing.

On the production side, because the monopolist hires too few workers, there are more employees in all the other firms. Now all the labor markets are distorted.

Economists have come full circle. Instead of being able to say markets are best, when we are talking about the real world, we can say there always exists, at least theoretically, a better solution than the market.

Having said that, it is most often the case we don't know what that better solution is. To return markets to

an approximation of the ideal requires a complex set of subsidies, taxes, government production, and regulations. Economists suggest a simple rule. When the costs of implementing the correction exceeds the benefits, leave the market alone. Cost-benefit studies remain economists favorite tool for determining the desirability of any particular policy.

Economic Reasons for Governments

Adam Smith

Public Goods

Externalities

Utilitarians

Redistribution

John Maynard Keynes

Unemployment

George Akerlof

People are “irrational”

Joseph Stiglitz

Incomplete Information

So for practical purposes, until economists have developed better tools, markets provide the solution that is the most likely to approximate what we want.

When government does intervene, it has a number of ways to proceed. For instance, to mitigate the

information problem, the government has made use of regulatory approaches. Fair disclosure such as financial advisors provide, accurate labeling such as with foods, licensing professionals such as public accountants, and the provision of public information such as public health announcements are examples.

The federal and state governments deal with many of the short comings of the private economy. However, the role of local government in tackling quite a range of economic problems should not be dismissed. To see this let's turn to Wabash County.

The numbers used in this report are for 2013. In this report we will deal with the revenue side.

The county budget runs roughly \$1200 per resident. Dozens of sources go into generating this number. However, of all revenues, property taxes provide the bulk of the county's income at 52% of the total. This swamps all of the other sources of money.

The second largest source of revenue is the Local Option Income Tax (LOIT). It is a distant second at just 7% of total county revenue. In third place at 5% is the County Adjusted Gross Income Tax (CAGIT). As their names imply, they depend on income and are fixed percentages of the state's definition of adjusted gross income.

As discussed above, there are only two types of taxes – wealth and income. The property tax is a form of wealth tax. Income remains as the only other source. Thus the county depends on a wealth tax for over half of its revenue, and a mere 12% comes from income.

The income taxes are flat taxes – a fixed percentage of adjusted gross income. The popularity of the flat taxes have ebbed and flowed with economists. There are arguments in favor because at a theoretical level the tax is more efficient. More efficient in this instance means that the willingness to work would be altered the least with a flat tax compared to all others.

On the other hand empirical measures of the effect of using progressive taxes find the efficiency losses are not particularly pronounced.

As a practical matter, the county tax is sufficiently low that even if a certain degree of progressivity were introduced, it would not have much impact on behavior, inequality, or revenues. Since in its current form it is administratively simple, economists would generally opt to stay with this kind of taxation.

The remaining 36% of county revenue is an agglomeration of much lower percentage sources including fees, grants, reimbursements, services rendered, and specific state funded programs.

A part of tax policy that does not show on the balance sheet is tax exemptions. If the city offers a tax abatement to a firm, the lost revenue has no corresponding line item in the budget. To assess the impact of these exemptions requires calculating the tax incidence – the percentage actually paid as a portion of earned income. To evaluate a tax system in its entirety would require knowing everyone's tax incidence. In actual fact a near impossibility. Exemptions, however, are inconsequential in comparison to such vital revenue

sources as the property tax.

How county government raises money affects behavior and equity. The taxation of property pushes people away from the acquisition of this form of wealth. On the other hand the property tax may have desired redistributive qualities. Economists believe in choice. Imagine different policies that raised identical amounts of revenue. Which is preferred? Is it one with greater reliance on income or possibly one that relies even more heavily on property? It is not a question economists can answer alone. The strength of economics is in studying consequences, and though economics can never escape equity issues, the best we can do is to present a range of outcomes among which society can choose.

Local government to most people is almost invisible. The services it provides, the ways it raises revenue, and the impact on our daily lives seems dwarfed by state and federal policies and programs. But in fact the effects of local government weave through our existence to a far larger extent than any of us acknowledge. In this report we hope to have given you a glimpse of one side of the government in Wabash County.

Libraries

The American Library Association finds 96% of people maintain public libraries enhance their communities. What are the economic benefits of libraries? In this piece we look at the specifics for

Wabash County.

Many of the public libraries in the Midwest date from the time of Andrew Carnegie's efforts to make sure communities could make available, free of charge, a wealth of information. He believed that access to a library provided opportunities for everyone to learn and develop intellectually which meant people of every economic strata had an opportunity to advance.

Andrew Carnegie started his campaign for public libraries in the late nineteenth century by offering to finance the construction of a library if the community would raise a percentage of the total costs. Indiana built more Carnegie libraries than any other state.

Three of the five public libraries in Wabash County – North Manchester Public Library, Wabash Carnegie Public Library, and Roann Carnegie Library – originated as Carnegie libraries.

Though everyone agrees a public library is an asset, the economic value cannot be measured in sales and profits. Public libraries provide services for free, so the benefits go unmeasured. Only from usage can one infer the value of benefits.

In order to calculate the value of libraries, one must first ascertain the value of reading. The decision to spend an hour



reading implies a willingness to sacrifice an hour of leisure spent on some other activity. Therefore, if we could calculate the value of leisure we would have a minimum value for the pleasure of reading. This places us in a thorny area – what is the value of leisure?

In a future issue we will address the economics of leisure in more detail. For our purposes here, we can ask what are the approximate values of other leisure activities. Anyone deciding to read instead of pursue these alternatives, must value the book more.

We will look at three leisure choices – movies, pay-for-view TV, and reading a store bought book. Movies in Wabash County range from \$3 for matinéés to \$8 for first run films. Movies tend to be in the two hour range, so people attending them must value their leisure at \$1.50 to \$4.00 an hour or more.

Pay-for-view ranges from \$1.99 for a one hour show to \$4.99 for a two hour movie. In essence the leisure is priced in the \$2.00 to \$2.50 range.

The most apropos are the prices of best sellers which tend to fall in the \$25 to \$30 range. Assuming ten hours are needed to read a book, the leisure value per hour is in the \$2.50 to \$3.00 range.

These values are in the neighborhood of each other, and the mid-point closely matches the most similar activity to library services – the reading of a purchased book. We will use \$27.50 as our estimate of the value of each book checked out.

The adult value of a book seems reasonably robust. Children present a new difficulty. Their books

are shorter, though often read multiple times. Reading by children has both an investment and consumption value. For young children, parents are needed to perform the reading and help the child. All these factors should enter into a complete analysis. Since this data is not available we must approximate. Though arbitrary, we have chosen a value of \$15 for the use of a children's book. Now we turn to the numbers for Wabash County.

Wabash County has five public libraries – Wabash Carnegie Public Library, North Manchester Public Library, Troyer Public Library in LaFontaine, Roann Carnegie Library, and Lagro Library – plus Manchester University's Funderburg.



Usage of the six libraries based on statistics kept by the libraries suggest they see a total of 280,000 visits per year.

Not all of the users borrow books. Newspapers are read, copiers used, computer terminals accessed, and

archives and museums maintained. In addition book clubs and children's activities support and promote reading. These are some of the panoply of services provided. Here we will focus on book usage alone in our measure of library services.

The American Library Association (ALA) estimates an average of eight books circulated per person each year in the U.S. For Wabash County this suggests there are approximately 240,000 books checked out each year. This number fits with the total usage number and serves as the basis of our value calculations.

We further separate two distinct types of users – adults and children. According to the ALA, children borrowers account for 34% of circulation. Thus we apply \$27.50 to 66% and \$15 to 34% of the total circulation.

The top rows of the table on the next page summarize the numbers for usage and circulation for the county. We estimate that 158,400 adult books and 81,600 children's books are checked out each year.

By applying our dollar estimates, it is possible to calculate total and per capita benefits of library book circulation.

Multiplying the adult circulation by \$27.50 and the children's by \$15.00 suggests benefits of \$4.4 million and \$1.2 million respectively. Adding produces the total benefit of \$5.6 million. This translates to a \$186 value per person.

Costs represent the total expenditures of the libraries – personnel, books, maintenance, etc. – as

gathered from interviews and public records. The estimated budgets of the six libraries is just under \$2 million.

These numbers, presented in the table, lead to net benefits. The dollar value to the community above costs is \$3.6 million or \$120 per person.

Of course these numbers are lower bounds. All the other services provided mentioned earlier have been neglected. To determine the value of these activities would entail surveys, monitoring, and a tremendous amount of guess work.

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	Total	Per capita
Users	280,000	
Circulation	240,000	8
Children	81,600	3
Adult	158,400	5
Benefits		
Children	\$1,224,000	\$41
Adult	\$4,356,000	\$145
Total	\$5,580,000	\$186
Cost	\$1,975,000	\$66
Net Benefit	\$3,605,000	\$120

fit analysis. The problem can be approached from three

directions. One is to just measure the total benefits minus the total costs and make sure they are positive. The libraries clearly meet this criteria.

A second approach is to take the ratio of benefits divided by costs. If the resulting number is significantly larger than one (economists usually use 1.03 as their cut off point), then it implies more of the activity should be done.

Using this latter approach a ratio of 2.8 results. Such a high number suggests libraries should expand dramatically.

Economists preferred way to analyze a situation is to ask what is marginal benefit minus marginal cost. The marginal benefit of the library is how many more dollars of benefit occur if the library expanded by a small amount, say one book. The marginal cost is how much costs went up – in this case the price of the book.

The question the economist would want answered is how many times will that next book be taken out. If zero times, it shouldn't have been bought. If once, then by our values, it has broken even. More than once leaves marginal benefit greater than marginal cost, and the library needs to be larger.

It is an open question how many more books the library could buy and still average more than one check out per additional book. The demand curve for reading is most likely very vertical. this implies that further supply may increase total consumption by very little. More books at the library may not cause readers to read more. On the other hand, an increase in books does

provide more choices allowing readers to enjoy something more to their liking. This is a benefit. Measuring this, though, would be a nightmare.

No matter the analytical approach, the numbers make clear that Wabash County benefits from its libraries. Libraries often are ignored in the lists of amenities of a community, but they are an important addition that contributes to the well-being of residents. Wabash County is no exception.

Wabash County in Context

The status and health of the national economy is the prime determinant of the economic situation in Wabash County. In our final segment we turn to the economy as a whole to see what lies in the future for the local conditions.

Rural counties lag behind the national economy whenever there is a recovery in progress. Current national conditions and those projected for the years to come can serve as indicators for the upcoming prospects for the county.

Two important and reliable sources for the current and future state of the economy are the Federal Reserve (Fed) and the Congressional Budget Office (CBO). Their numbers show the U.S. economy is recovering, albeit slowly.

A report from the Federal Reserve and an analysis done by the CBO agree that by 2017, the national economy will have returned to potential Gross Domestic

Product (GDP). What does this mean?

The calculation of potential GDP starts with the average growth rates of a period of stable, low unemployment years. Currently the 2000-2007 years serve as the basis. Starting with 2008, this average growth rate is applied to each year to show what GDP would have been if full employment had persisted from 2008 onward.

Coming out of a recession, growth rates tend to be above average, but the U.S. has not had this experience. However, growth for the next three years is forecast to be strong enough that the U.S. will finally return to potential GDP. Numerous economists predicted, based on the experiences of Japan and other countries, the U.S. would take ten years to recover from the financial crisis. Unfortunately, it appears they were accurate.

The Federal Reserve pays particular attention to unemployment rates, inflation, and to a lesser extent interest rates. The legislation that created the Federal Reserve mandates they pursue full-employment and low inflation simultaneously. Economists know there is a trade-off between the two meaning the Fed is continually playing a balancing act.

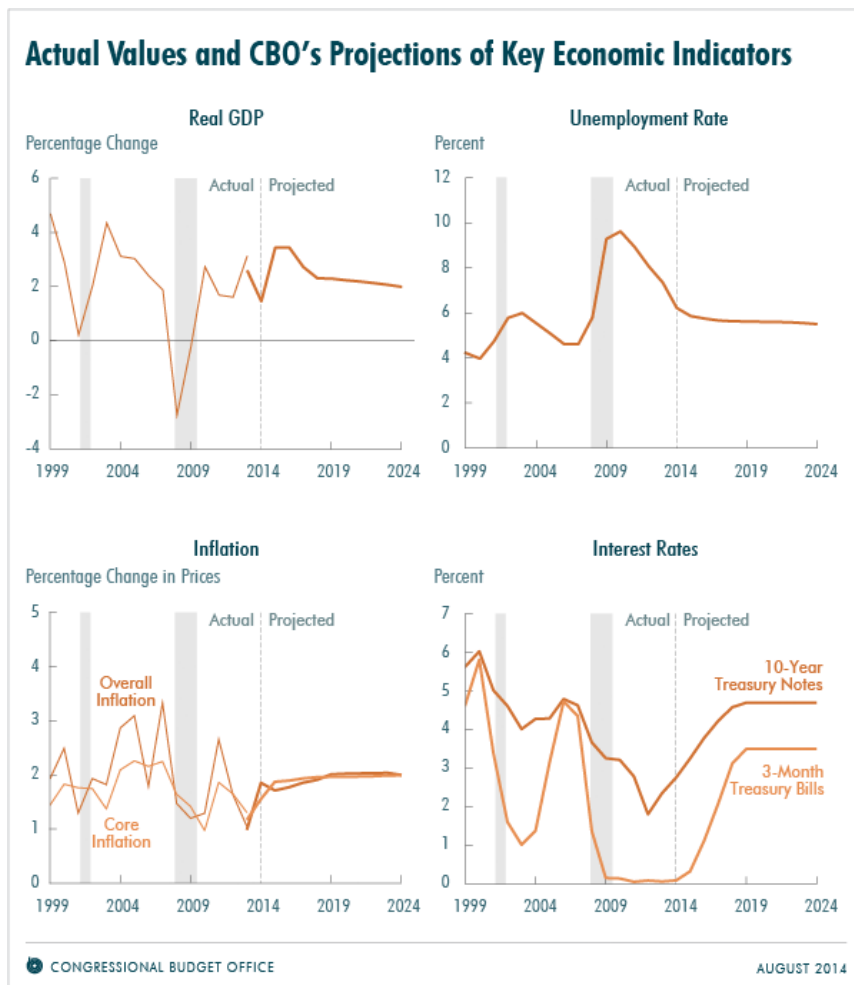
One of the lessons the Fed learned in the late '70s and early '80s is never allow inflation to take off. To rein in high rates necessitates a painful recession, so it is best to never let rates become too high.

On the other hand the Fed never wants to see zero inflation. One, aiming at zero risks sliding into deflation – a fall in prices. Deflation clobbers investment. Firms

and people will not invest if they know the value of the investment next year will be worth less than this year.

Secondly, a low level of inflation suppresses unemployment. As prices rise firms can charge more. Wages generally lag meaning labor costs are declining slightly. Thus firms maintain or increase the number of workers they employ.

The Fed remains committed to long term inflation



in the neighborhood of 1.5%. However, whenever unemployment is high, they will let inflation rise to 2% to spur the economy. Once full-employment is reached, the Fed will return to its long term goal.

Currently the Fed considers unemployment in the low 5% range as full-employment.

A decline of half a percent in unemployment for 2015 (approximately an additional two million jobs) and another quarter of a percent in 2016 are predicted. Since the inception of this report we have found that the county lags by 18 months to two years the national situation. This suggests the county should see a marked improvement in 2016 followed by another smaller surge in 2017.

The most troubling numbers are those for long-term unemployment. The unemployment number reported on the news is what the Bureau of Labor Statistics (BLS) calls U3. It represents the short-term unemployed. It fails to capture those working part-time who want full-time work, and most importantly misses all of the discouraged workers.

Discouraged workers are those who are no longer in the labor force, not because they don't want work, but because they do not see any prospects of a job. If you are not in the labor force, you are not counted as unemployed.

BLS does maintain a series that counts under-employment and discouraged workers – U6. What is clear from the predictions is that U6 will remain well above historical trends for the foreseeable future. Many

workers who lost their jobs in the recession may not find employment ever.

Counties like Wabash are particularly hard hit by the discouraged worker phenomenon. A disproportional number of discouraged workers are older workers. Wabash County has more than the average percentage of older workers, and thus more than average discouraged workers.

Having said that, as unemployment in general falls, more employable members of households return to work and mitigate the economic hardship of the discouraged worker.

The bottom line remains hopeful. In the next two to three years, the county may well be back on a path it enjoyed before the recession. A return to full employment means tens of millions more dollars in the Wabash County economy. It is something to look forward to.

Contributors

James Harry graduated Spring 2014 as an economics major. He is headed to law school. He joined the WCER team in the Fall of 2012.

Vasin “Thew” Pasda is a junior economics major at Manchester University. He began as an intern on the WCER team in the Fall of 2012.

Alex Pierce graduated Spring 2014 as an

economics and history major. He is headed to law school. He joined the WCER team Fall 2013.

Taylor Price is a junior economics and accounting major. He joined the WCER team Fall 2013.

Allison Weber is a senior chemistry major at Manchester University. She became a WCER intern in the Fall of 2012.

Matt Hendryx is Visiting Associate Professor of Economics at Manchester University and Director of the Wabash County Economic Report. He supervises the interns working on the WCER.

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