

# Center for Economic Analysis and Development

Janet Harrah, Senior Director  
Anne Gallagher, Senior Regional Economist

Haile|US Bank College of Business  
Northern Kentucky University

(859) 392-2412  
harrahj1@nku.edu

## Licking River Greenway Impact Analysis

### *Introduction and Purpose*

The goal of this study is to evaluate the economic impact of a proposed \$12.9 to \$18.1 million investment in improving the Licking River Greenway in Northern Kentucky. This investment will consist of on-street bike paths, multi-purpose paths, gravel paths, interpretive stops, trailheads and trailhead amenities, river and levee bridge crossings, new park development and riverbank stabilization. The details of the plan were taken from the Licking River Greenway Master Plan, a project description provided to CEAD by Vision 2015, which included two estimates, for low end costs and high end costs. This cost estimate data was used in creating a detailed breakdown of the investment by sector.

The goal of this report is to provide an economic impact statement based on an economy-wide economic impact analysis model (the IMPLAN model), which accounts for re-spending of newly injected revenue related to the investments and construction described. This model is an expenditure-based model and does not include the increased economic activity that would be associated with the use of the improvements by the public.

### *Economic Impact Statement*

The analysis was carried out assuming that all initial investment, including the actual construction activities, purchase of necessary materials, and hiring of labor occur locally within predefined study region, the counties<sup>1</sup> comprising the Cincinnati Metropolitan Statistical Area. We further assume that additional employment of resources and inputs would all be done locally, and that new jobs will exist while the construction is being completed; they would not be permanent once the work is done, although unrelated economic activities may be sufficient to sustain them; in addition, the economic activity generated by use of the developed area would be positive and in excess of that reported here. In short, all initial and project-related investment, as well as all follow-up economic activities that one might expect as a result of the initial investment, will take place within the Cincinnati MSA. Should there be a reason to assume that part of the initial investment would leave the region, for instance by hiring non-regional labor, the estimated economic impacts would be accordingly smaller.

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<sup>1</sup> Dearborn, Franklin and Ohio counties, in Indiana; Brown, Butler, Clermont, Hamilton, and Warren counties in Ohio; and Boone, Bracken, Campbell, Gallatin, Grant, Kenton and Pendleton counties in Kentucky.

The initial investment will result in large direct impacts within the following industry sectors: architectural and engineering services, wholesale trade including building and paving supplies, wood product and paving materials manufacturing, transportation services and other support services. The industry-by-industry model of the Cincinnati MSA was aggregated into twenty principal industry groupings, commonly identified by the 2-digit NAICS codes. Our results below present a sector-by-sector impact on output by these industry groupings.

Results of this analysis are presented in 2010 dollars. The budget data reflected low and high estimated costs for the project. Therefore two sets of estimated impacts are reported.

### ***Results***

The direct effects of the initial investment will be to create between 117 and 164 jobs and add between \$12.9 and \$18.1 million to industry output in the Cincinnati MSA. As the construction company draws on other local inputs in form of materials and labor, additional “indirect” inter-industry activities occur. In addition, the economic activity of the households will create “induced effects.” The impacts of the indirect plus the induced impacts will create an additional 77 to 108 jobs and an additional \$11.3 to \$15.8 million in additional industry output. See Tables 1 and 2 for detailed breakouts of these jobs and outputs by major industry sectors for estimates based on both the low and high cost estimates.

### ***Tax Revenue Statement***

There are several increases in tax revenue from this economic activity that are of note: the increased industry output leads to additional sales, from which sales taxes are paid to the state of Kentucky.

In addition, the job growth leads to additional labor income: under our most expansive model (the indirect and induced effects that give the involvement of households), total labor income including both indirect and induced effects of the project would be between \$7.25 and \$10.2 million. If all of this income occurred in a city or town collecting a 1.5 percent payroll tax, between \$72.5 and \$102 thousand would be generated in payroll taxes.

Revenues would also be paid to state and federal governments through personal and corporate income taxes and to the state of Kentucky through sales taxes, but the complex structure of the marginal tax rates for these payments makes calculating the precise increase uncertain. However, if all direct payroll, were to be spent in Kentucky, sales taxes generated would likely be between approximately \$123 and \$173 thousand.

A strong case can be made that the improvement of Licking River Greenway will lead to higher property values in the areas nearby. Estimation of increased property tax collections as a result of this improvement in property values is beyond the scope of this analysis.

**Table 1: Estimated Employment Impacts**

	Low Estimate			High Estimate		
	<i>Direct Effect</i>	<i>Indirect + Induced Effects</i>	<i>Total Effect</i>	<i>Direct Effect</i>	<i>Indirect + Induced Effects</i>	<i>Total Effect</i>
<b>Sector</b>						
Agriculture, Forestry, Fishing and Hunting	0	0	0	0	1	1
Mining, Quarrying, and Oil and Gas Extraction	0	0	0	0	0	0
Utilities	0	0	0	0	0	0
Construction	117	1	118	164	1	165
Manufacturing	0	3	3	0	4	4
Wholesale and Retail Trade	0	14	14	0	20	20
Transportation and Warehousing	0	4	4	0	5	5
Information	0	1	1	0	2	2
Finance, Insurance and Real Estate	0	8	8	0	11	11
Professional, Scientific, and Technical Services	0	13	13	0	18	18
Management, Administrative and Waste Management Services	0	6	6	0	9	9
Education and Health Care	0	11	11	0	15	15
Hospitality	0	2	2	0	3	3
Other Services	0	12	12	0	17	17
Public Administration	0	2	2	0	3	3
<b>Total</b>	<b>117</b>	<b>77</b>	<b>194</b>	<b>164</b>	<b>108</b>	<b>272</b>

**Table 2: Estimated Output Impacts**

	Low Estimate			High Estimate		
	<i>Direct Effect</i>	<i>Indirect + Induced Effects</i>	<i>Total Effect</i>	<i>Direct Effect</i>	<i>Indirect + Induced Effects</i>	<i>Total Effect</i>
<b>Sector</b>						
Agriculture, Forestry, Fishing and Hunting	\$0	\$22,899	\$22,899	\$0	\$32,168	\$32,168
Mining, Quarrying, and Oil and Gas Extraction	\$0	\$15,606	\$15,606	\$0	\$21,920	\$21,920
Utilities	\$0	\$126,901	\$126,901	\$0	\$178,251	\$178,251
Construction	\$12,899,194	\$1,383,424	\$14,282,618	\$18,105,805	\$1,956,070	\$20,061,875
Manufacturing	\$0	\$1,298,122	\$1,298,122	\$0	\$1,823,398	\$1,823,398
Wholesale and Retail Trade	\$0	\$1,374,326	\$1,374,326	\$0	\$1,930,427	\$1,930,427
Transportation and Warehousing	\$0	\$419,505	\$419,505	\$0	\$589,250	\$589,250
Information	\$0	\$293,857	\$293,857	\$0	\$412,762	\$412,762
Finance, Insurance and Real Estate	\$0	\$2,020,780	\$2,020,780	\$0	\$2,838,459	\$2,838,459
Professional, Scientific, and Technical Services	\$0	\$1,659,663	\$1,659,663	\$0	\$2,331,222	\$2,331,222
Management, Administrative and Waste Management Services	\$0	\$492,834	\$492,834	\$0	\$692,251	\$692,251
Education and Health Care	\$0	\$966,620	\$966,620	\$0	\$1,357,748	\$1,357,748
Hospitality	\$0	\$492,142	\$492,142	\$0	\$691,279	\$691,279
Other Services	\$0	\$583,596	\$583,596	\$0	\$819,742	\$819,742
Public Administration	\$0	\$117,940	\$117,940	\$0	\$165,664	\$165,664
<b>Total</b>	<b>\$12,899,194</b>	<b>\$11,268,215</b>	<b>\$24,167,409</b>	<b>\$18,105,805</b>	<b>\$15,840,611</b>	<b>\$33,946,416</b>