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## Measuring job creation for HOPE VI: a success story for community development efforts

Matthew J. Hanka<sup>a</sup>, John I. Gilderbloom<sup>b</sup>, Wesley L. Meares<sup>c</sup>, Mobin Khan<sup>b</sup> & Keith E. Wresinski<sup>b</sup>

<sup>a</sup> Department of Political Science and Public Administration, University of Southern Indiana, 8600 University Blvd., Evansville, IN 47712, USA

<sup>b</sup> Department of Urban and Public Affairs, University of Louisville, 426 W. Bloom Street, Louisville, KY 40208, USA

<sup>c</sup> Department of Political Science, Georgia Regents University, 2500 Walton Way, Augusta, GA 30904, USA Published online: 18 Feb 2015.

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# Measuring job creation for HOPE VI: a success story for community development efforts

Matthew J. Hanka<sup>a</sup>\*, John I. Gilderbloom<sup>b</sup>, Wesley L. Meares<sup>c</sup>, Mobin Khan<sup>b</sup> and Keith E. Wresinski<sup>b</sup>

<sup>a</sup>Department of Political Science and Public Administration, University of Southern Indiana, 8600 University Blvd., Evansville, IN 47712, USA; <sup>b</sup>Department of Urban and Public Affairs, University of Louisville, 426 W. Bloom Street, Louisville, KY 40208, USA; <sup>c</sup>Department of Political Science, Georgia Regents University, 2500 Walton Way, Augusta, GA 30904, USA

One of the federal government's largest housing programs over the past 20 years, HOPE VI, has reduced the concentration of poverty, changed the physical shape of housing, and provided supportive services. HOPE VI has leveraged government funds and private investments to achieve the goal of revitalizing neighborhoods throughout the United States. The sheer magnitude of the program has created much research on the effects of HOPE VI. However, little research has examined the impact HOPE VI has had on job creation. Using three economic multiplier models (preservation economic impact model, the economic impact forecasting system model, and impact analysis for planning), our analysis showed that HOPE VI helped revitalize two small Kentucky cities: Newport and Covington. In these two cities, our findings show a significant number of jobs generated by the creation of attractive, affordable housing. These findings suggest that policymakers should focus on job creation when planning programs like HOPE VI.

Keywords: economic multiplier; HOPE VI; housing; job creation; neighborhoods

#### Introduction

The United States Department of Housing and Urban Development (HUD) created HOPE VI to revitalize severely distressed public housing. Originally known as the Urban Revitalization Demonstration program, HOPE was created in 1992 as a response to the 1989 report from the National Commission on Severely Distressed Public Housing, which reported that approximately 6% of the nation's housing stock (86,000 units) were considered severely distressed (Brazley, 2002; GAO, 2007; Hanka, 2009; Popkin, 2002; Popkin et al., 2004). The acronym HOPE describes the program's overall goal: Housing Opportunities for People Everywhere.

The HOPE VI program has four important objectives: (1) to change the physical shape of public housing; (2) to reduce the concentration of poverty; (3) to provide community and support services to HOPE VI program participants; and (4) to develop partnerships between public and private agencies and organizations (Brazley & Gilderbloom, 2007; Gilderbloom, 2008; Gilderbloom & Hanka, 2006; Hanka, 2009; HUD, 1999, 2000; Popkin, 2002; Popkin et al., 2004; Schwartz, 2010). The analysis presented in this paper is based on the evaluations of the HOPE VI program in two Kentucky cities: Newport and Covington.

<sup>\*</sup>Corresponding author. Email: mjhanka@usi.edu

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There has been a considerable amount of research concerning HOPE VI; however, one aspect has been neglected: the evaluation of HOPE VI as a job generator. Through an economic multipliers based analysis, we argue that the HOPE VI programs in Newport and Covington helped create jobs at a crucial time when unemployment was at its highest in two decades (Shierholz & Mishel, 2009). We used three economic models based on multiplier effects, which describe the changes of economic output of various industries in the local economy due to the HOPE VI investment (O'Sullivan, 1993; Richardson, 1985; Weiss & Gooding, 1968). These models are the preservation economic impact model (PEIM), the economic impact forecasting system (EIFS) model, and impact analysis for planning (IMPLAN). These economic multipliers are used to project income and employment. The results of our analysis suggest that policy makers and evaluators should consider job creation when planning and implementing programs similar to HOPE VI.

#### Literature review: HOPE VI's failure to measure job creation

In 2000, the HUD published its first evaluation of HOPE VI, which examined the accomplishments of HOPE VI development in eight major US cities (HUD, 2000). According to this report, HOPE VI fulfilled its main goals of helping residents achieve self-sufficiency through improving education, job training, and homeownership through the community and supportive services program, HOPE VI's case management program. HOPE VI also improved the physical shape of housing, built new community institutions, increased employment opportunities, and reduced crime (HUD, 2000).

Place has an enormous impact on a person's success. Where a person lives affects their opportunities and life outcomes, and it plays a significant role in determining whether they become homeowners (Dreier, Mollenkopf, & Swanstrom, 2004; Galster & Killen, 1995; Galster & Mikelsons, 1995; Reid, 2007). HOPE VI has resulted in the removal and relocation of residents and families from their public housing units. HOPE VI developments have been built either on the same location as the old public housing site or have been built as a scattered-site development, as seen in the Newport HOPE VI program. The displacement of public housing residents as a result of HOPE VI has affected residents' sense of identity towards where they live and their attachment to a particular place, including friendship ties and social networks (Gotham, 2003; Hanka, 2009).

Scattered-site housing has produced high levels of neighborhood satisfaction among former public housing residents, including reduced fear of crime, better employment opportunities for adults, increased educational opportunities for children, increased neighborhood social interaction, and reduced cost-burden of housing (Brazley, 2002; Burby & Rohe, 1989; Galster & Killen, 1995; Gilderbloom, 2008; Goetz, 2013; Hanka, 2009; Popkin, Buron, Levy, & Cunningham, 2000; Rosenbaum, 1995).

HOPE VI has had a leveraging effect on public investments in community development and neighborhood revitalization (GAO, 2002; HUD, 2000; Popkin et al., 2004). Popkin et al. (2004) cite that, through changes in the Mixed Finance rule, housing authorities were able to leverage public and private money to revitalize public housing. Wyly and Hammel (1999), Byrne (2003), and Lees, Slater, and Wyly (2008) have shown that redevelopment of public housing through HOPE VI programs has opened areas for investment and integrated residential neighborhoods by income. This improvement is a "startling contrast to the patterns that have typified metropolitan development for 100 years" (Byrne, 2003, p. 429).

For every \$1 of federal funds spent on HOPE VI, local housing authorities raised an additional \$1.85 from other sources (GAO, 2002, 2007; Popkin et al., 2004), due to the

economic multiplier and leveraging effect. Of the \$6 billion spent on HOPE VI since 1993, approximately \$11.1 billion in funds (\$9 billion of non-HUD funds) was leveraged primarily through federal sources, rather than private sources (GAO, 2002; Popkin et al., 2004).

Zielenbach and Voith (2010) looked at the spillover and multiplier effects of HOPE VI developments in Boston, MA and Washington, DC on residential property values and neighborhood income. After demolition of the Boston and DC public housing sites, values surrounding the two sites increased by 5.4% in Boston and 6.2% in DC. Cisneros and Engdahl (2009) noted that residential property values in Philadelphia, PA HOPE VI sites increased by nine percent from 1995 to 2004. Average annual incomes were estimated to have increased between \$25,000 and \$48,000 as a result of the HOPE VI developments (Zielenbach & Voith, 2010). Through the removal of distressed public housing, HOPE VI developments can save cities on federal housing subsidies, and result in an increase in property tax revenues. Turner et al. (2007) estimate that removing a 7000 unit distressed public housing development can result in \$6.5 million in additional tax revenue over a 20-year period (see Cisneros & Engdahl, 2009).

The federal government has spent \$6 billion supporting HOPE VI renewal efforts in its 22-year history. In that time, few efforts have measured the number of jobs created as a consequence of the HOPE VI program (Turner et al., 2007). Cisneros and Engdahl (2009), along with HOPE VI critics Goetz (2013), Turner et al. (2007), and Imbroscio (2010) fail to mention job creation through community investment. The authors found only one attempt to measure job creation, and it fell short as a precise measurement.

Gilderbloom, Hanka, and Lasley (2008) and Gilderbloom, Hanka, and Ambrosius (2009) used the PEIM, developed by the Rutgers University Urban Planning Program, to calculate the total economic impact of new construction, determine the direct and multiplier effects of rehabilitation, and explain that the labor and materials used specifically for the new construction would be considered a direct effect (National Center for Preservation Technology and Training, 2001). Furthermore, the model explains how the multiplier effect consists of indirect impacts, which include any money spent on goods and services by the construction and related industries. Using the PEIM model, researchers calculated that for every \$1 million spent, 43–49 jobs would be created (Gilderbloom et al., 2009; Gilderbloom et al., 2008; Rypkema, 1997).

The PEIM model estimated that 1462 new jobs resulted from the \$34 million investment in the Newport, KY HOPE VI program. HOPE VI officials with the Housing Authority in Newport project predicted that another 98 units would be built in the near future, resulting in an additional 588 jobs. This would total 2050 jobs created directly by the new construction investment (Gilderbloom et al., 2009). Despite the grand effort of measuring job creation for community development, the estimates appeared to be greatly exaggerated in terms of job creation (Gilderbloom & Meares, 2012). Gilderbloom and Meares (2013) used the PEIM estimate for another development in Louisville, KY by counting direct job payroll of the developer and found that the total number of jobs created was in the range of 12–17 jobs per \$1 million invested.

#### **Research questions and methods**

Little research has focused on the impact of HOPE VI on the overall economic development strategy of a city; and much of the literature has focused – including HUD studies – on experiences in larger metropolitan areas such as Chicago, Atlanta, San Antonio, New York, Seattle, and Baltimore (Abt Associates, 2003; Gilderbloom & Hanka, 2006; Hanka, 2009; HUD, 1999, 2000; Popkin et al., 2004; Salama, 1999) and less on medium-sized and smaller cities. Smaller cities should not be ignored, because a city, large or small, must maximize its competitive advantage to bring business and economic development to transform the city into an economic engine. Of the approximately 1.2 million public housing units in the United States, 48% of units are located in cities with fewer than 100,000 people (Voith, 2011).

Much of this study derived from an eight-year (2000–2007) HUD evaluation grant to the Center for Sustainable Urban Neighborhoods (SUN) at the University of Louisville, specifically to study Newport, KY. A privately funded study began in Covington, KY in 2009. These two small cities are adjacent to each other and border the Ohio River across from Cincinnati.

The authors did not assume or project that the HOPE VI program exclusively caused the economic revitalization of the city. Instead, the authors asked two main questions: (1) did the leveraging effects of economic multipliers contribute to the revitalization of Newport and Covington, and (2) what impact did HOPE VI have on job creation in Newport and Covington?

In order to measure the impact of the HOPE VI program on job creation, three economic job multipliers were used to determine the direct, indirect, induced, and total effects: (1) the PEIM for Newport; (2) the EIFS model for Covington; and (3) the IMPLAN system model for Covington.

#### Background of the Newport HOPE VI program

The initial agreement between HUD and The Housing Authority of Newport (HAN) was to convert and replace 202 severely distressed public housing units in the old public housing sites on the west side of the city with 325 mixed-income units throughout the city. Figure 1 shows one of the old public housing sites in Newport, which is identical to Covington's public housing.

Of the 202 households displaced and removed from the old public housing site, only 37 remained in Newport, and only 10 purchased homes (Gilderbloom et al., 2008; Hanka, 2009). Of the 325 total units built to replace old public housing units, 192 were rental units, and 133 were homeownership units. One of the HOPE VI rental units included Corpus Christi Apartments, a 20-unit project using low income housing tax credits and designed for senior living. The units in Corpus Christi range from 628 to 767 square feet and have remained at 100% occupancy since they opened in 2006. Another development was Liberty Row Housing, which includes 13 newly constructed and one rehabilitated house, with an average price ranging between \$123,000 and \$130,000 (see Figures 2 and 3).

Unlike the inefficient old public housing units built on cinder blocks where energy cost as much as \$400 per month for a 400 square foot unit, many of these new HOPE VI units incorporated energy efficient methods (Hanka, 2009). In the Covington HOPE VI development, the authors estimated that energy bills would average around \$60 to \$70 a month compared to the old public housing, which cost around \$185 per month (Gilderbloom, Wresinski, Grooms, & Meares, 2014).

#### **Covington HOPE VI development**

The Covington HOPE VI project is on the site of the old Jacob Price Homes public housing development – a large, barracks-style housing initiative built in 1939 and



Figure 1. A barrack-like public housing development in Newport, KY. Source: Credit John I. Gilderbloom.



Figure 2. HOPE VI Liberty Row development in Newport. Source: Credit John I. Gilderbloom.



Figure 3. Covington's East River's Edge HOPE VI mixed income housing. Source: Credit John I. Gilderbloom.

named for Jacob Price, a prominent local African-American businessman, minister, and politician who served and worked with the African-American Community in Covington. At its peak, Jacob Price had 163 apartments with as many as 500 residents in a threeblock area. Unlike some "all black" public housing developments, Covington and Newport were never "all black."

The Jacob Price development had its challenges. Due to its proximity to the Licking River's relatively high water table, flooding was common. The flooding contributed to black mold and toxic exposure. Combined with the public health concern of second and third hand smoke, the housing was considered unhealthy and "filled with carcinogens" (Gilderbloom et al., 2014, p. 27). These unhealthy housing units, with their toxins, contributed to premature deaths (Gilderbloom & Meares, 2012, 2013). Demolition of the Jacob Price Development began in 2005. By the time the \$17 million HOPE VI grant was awarded in 2010, the majority of the development had been demolished. Most residents either left the public housing system or were relocated to another property run by the Housing Authority of Covington (HAC). At the time of publication, only 30 units were occupied by residents.

Jacob Price is an ideal location for revitalization, due to its proximity to public transportation, parks, employment, stores, and child care centers, especially when compared to Covington's other housing projects. The new HOPE VI developments in Covington are East River's Edge and City Heights (see Figure 4). East River's Edge is a mixed-income housing development with both subsidized and market-rate housing options. In contrast, City Heights is isolated and not within walking distance to stores, jobs, and public transportation.

Currently, the program is finishing construction on rental units, and in the winter of 2015, the first residents will move in (Gilderbloom & Meares, 2012; Gilderbloom et al., 2014). The

investment in the Eastside neighborhood has inspired other programs and projects in the same neighborhood. One such project is the creation of a riverfront park that will contain a bike trail that links the neighborhood to the downtown area. Another project is the conversion, by a local nonprofit organization, of an old school into housing units.

#### Analysis of job creation using the EIFS

Covington is in a position to see large increases in employment from HOPE VI and other investments into the Eastside neighborhood. Similar to the use of the PEIM multiplier for Newport, we used the EIFS developed by the U.S. Army Corps of Engineers to quantify the economic impact. The EIFS determines the direct, indirect, induced and total effects of an external infusion of funds (Huppertz, Bloomquist, & Barbehenn, 1994). Because of its ability to generate multipliers for any county or metropolitan statistical area within the United States, EIFS provides a standardized model that allows for comparisons across cities, counties, and regions, and can simultaneously hold constant between 600 and 1500 variables in developing its estimations (Huppertz et al., 1994).

The EIFS provides a consistent estimate, which is an improvement over existing customized economic forecasting. Moreover, the comprehensiveness of the model far exceeds local models. EIFS uses both governmental and privately generated data, including the Census Bureau's County Business Patterns, Census of Population and Housing, and other current data (Gilderbloom & Mullins, 2005; Huppertz et al., 1994).

Although originally developed as a means to forecast the economic effect of closing army bases and other military installations, the EIFS model has been used to predict the economic consequences of an exogenous infusion of funds into a geographical region, such as a metropolitan area. EIFS can provide as accurate of an approximation of new jobs in a local economy as a non-survey model (Gilderbloom and Mullins, 2005; Huppertz et al., 1994).



Figure 4. Covington's HOPE VI senior cottages in the East River's Edge development. Source: Credit John I. Gilderbloom.

The EIFS model can predict the consequences of an external infusion of money with a variety of measures, such as commercial sales volume, employment, income, changes in the local population, school enrollment, demand for housing, changes in governmental expenditures and changes in governmental revenues (Huppertz et al., 1994). Because our study focused on the economic consequences of federal funding, measures of sales volume (the amount of money spent by individuals on goods and services) and employment (the number of jobs created) were chosen as the most appropriate measures.

When the federal government spends a certain amount of money in a county, metropolitan area, or other region, the EIFS forecasts approximately how many new jobs and commercial sales the investment will create. The economic base model assumes that external changes resulting in increases in export activity cause increases in the payroll of export firms, which transmit to the local service sector establishments. Additionally, the inflow or outflow of money causes activity in local services to change by a multiple of the original change (i.e., the multiplier effect), as the influx of funds is spent and re-spent. Large infusions of money into a local economy will directly or indirectly cause the revenues of basic industries to rise, because many basic industries sell to both the local economy and other regions. As the revenues of export-based basic industries rise, the industries demand more workers. As these basic industries increase demand, they create jobs in non-basic, non-exporting industries (Gilderbloom & Mullins, 2005; Huppertz et al., 1994).

The employment impact of the expenditures on the new construction project goes beyond construction. For example, new housing creates a certain number of construction jobs. Contractors who work on such projects will place orders with suppliers and manufacturers. Orders placed with local suppliers increase the revenues, and subsequent employment. These suppliers are part of a basic industry and economic base theory that predicts there will be additional hiring in non-basic industries.

At the center of the economic base multiplier model is the multiplier effect, which is the change in total local employment divided by a change in export employment (Bogart, 1998; O'Sullivan, 1993; Richardson, 1985; Weiss & Gooding, 1968). In other words, when one dollar is spent, how many times is that same dollar re-spent in the neighborhood, creating other jobs, what is called indirect effects (Gilderbloom & Mullins, 2005; O'Sullivan, 1993; Richardson, 1985; Weiss & Gooding, 1968). The EIFS model quantifies this effect and thereby determines the direct, indirect, and total effects of an external infusion of funds. The sales volume and jobs generated are determined by using the information on each city in the database and entering the amount of the Empowerment Zone award as an external influx of funds (Gilderbloom & Mullins, 2005).

For this study, the authors used EIFS to estimate the sales volume generated and the number of jobs created. These estimates, however, are conservative compared to local official estimates. Local estimates on job generation can average three times higher than EIFS and are often based on simplistic assumptions. The high estimates are driven by competition with other cities trying to demonstrate the largest return for the investment. PEIM is also used to justify these estimates by providing exaggerated job creation numbers. The EIFS model identifies and quantifies economic activities and performance in a regional economic area.

The precise commercial revenue and job effects depend on the amount of funds involved and the characteristics of the area. The EIFS model has thousands of variables on each area to establish this impact. Because the focus of this report is on commercial sales generation and job creation in the inner city, the authors chose to examine the center of the metropolitan area, since this is the smallest area the EIFS model can explore. The EIFS model estimates the number of direct jobs created as a result of increased consumer demand. The number of indirect jobs and total jobs created is calculated in the same manner as commercial sales.

The most conservative method for estimating occupational growth is a multiplier of 12 jobs per million dollars spent, with a higher estimate of as many as 17 jobs created (Hanka, Kumaran & Gilderbloom, 2007). Thus, a conservative estimate would be 480 jobs created, and a high estimate of 680 jobs would be created. Job multipliers depend on the kind of investment and provide a range of jobs created per million. In the case of road construction, 7.8 jobs were created for every \$1 million spent (Garrett-Peltier, 2011). In contrast, the job multiplier used in Newport, as previously mentioned, showed between 43 and 49 jobs per \$1 million spent (Gilderbloom et al., 2009). To account for sectoral variations, EIFS averages out investments by including non-housing expenditures such as infrastructure, roads, and first responders. It does not separate out jobs created by housing alone, which could be significantly higher than EIFS estimates.

#### The IMPLAN system

Over the past 20 years, there have been dramatic improvements in the ability to predict jobs created by investment. In the past, these estimates did not include indirect and induced job creation. The job estimator was based on limited city-wide census data, and did not use zip codes, which generate more accurate numbers. Consequently, the IMPLAN system counters earlier limitations of the EIFS by calculating a more accurate number of jobs created, and is based on input-output analysis.

One of the widely used analytical methods, input-output analysis, is part of a group of methods known as Social Accounting Models. Input-output analysis builds a model of existing interdependencies in a regional or national economy – where the output of one industry becomes the input of other industries – in order to estimate economic multipliers. These multipliers forecast the economic impact of an individual project or policy on the broader economy. The modeling system for input-output analysis used in this study is IMPLAN, originally developed for the U.S. Forest Service in 1976. It was later privatized by the Minnesota IMPLAN Group (MIG) and was further expanded through a partnership with University of Minnesota. For further discussion on theoretical constructs of input-output analysis and IMPLAN modeling methods see Alward and Palmer, 1983 (also cited in Hotvedt, Busby, & Jacob, 1988; Leistritz, 1994; Lindall & Olson, 1996; Richardson, 1985; Rose, 1995).

The IMPLAN system is now considered state-of-the-art in estimating job creation from investments and is used by a number of agencies and institutions. A range of published academic studies have used IMPLAN as a measurement system (Bergstrom, Cordell, Ashley, & Watson, 1990; Carroll & Smith, 2006; CUPA, 2013; Dodd et al., 2013; Doeksen, Johnson, Biard-Holmes, & Schott, 1998; Douglas & Harpman, 1995; Johnson & Moore, 1993; Lynch, 2000; Siegel & Leuthold, 1993; Waters, Holland, & Weber, 1997), illustrating it is an accepted measurement tool. In spite of its success, the IMPLAN has rarely been used in HOPE VI studies (Gilderbloom, 2008; Gilderbloom & Hanka, 2006; Gilderbloom et al., 2008; Gilderbloom & Meares, 2012). Hotvedt et al. (1988) provided a critical discussion on the use of IMPLAN for input-output analysis, comparing the results produced by IMPLAN with other studies. They found that IMPLAN multipliers, as expected, are sensitive to geographical scale of analysis and are generally consistent with estimates produced by related methods. In their comparison of IMPLAN with other input-output modeling systems, Rickman and Schwer (1995) found IMPLAN multipliers consistent with those estimated by other systems. As a result of these and similar studies, IMPLAN is considered a preeminent platform to conduct fiscal and economic impact analysis for a wide range of projects and programs. Nevertheless, there are also some limitations to the IMPLAN system. As it relies on input-output modeling, areas such as rural counties with a smaller economic diversity and export base compared to urban areas, may not be suitable for IMPLAN analysis (Holmes, Slifkin, Randolph, & Poley, 2006; cited in Mandich & Dorfman, 2014). For urban areas, however, IMPLAN continues to be widely used to evaluate fiscal and economic impacts of various projects and programs on municipalities and metropolitan regions.

The authors tested the IMPLAN system to determine its accuracy by using the IMPLAN's direct job estimates and comparing them with the actual number of persons hired in a development. This helped confirm the accuracy and precision of this system. IMPLAN offers two types of data: countywide and zip code data. Although countywide data are known to be accurate, the zip code data-set provides finer granularity and was better suited for our analysis.

According to City of Covington officials, an estimated \$42 million will be invested directly in new construction and building renovations. Using this estimate, we were able to create an analysis to predict the number of jobs that will be created from the construction in the area of interest (see Table 1).<sup>1</sup> It is estimated that, by direct effect, the project will produce 242 jobs (a labor income of roughly \$20 million) in addition to the approximately \$22 million in value to the city's industries, resulting in a total output of almost \$42 million.

The indirect effect from the project will lead to the production of 43 jobs and the generation of \$1.86 million in labor income. Also, Covington's industries will gain approximately \$2.7 million in value and an output of roughly \$4.5 million. The induced effect will increase jobs by 95, spawn an additional \$3.5 million in labor income, add approximately \$7 million in value, and have an output of approximately \$10.5 million. Overall, the project will add 380 jobs to the city, generate approximately \$25.1 million in labor income, and add approximately \$31.9 million dollars of value to Covington and its industries, with an overall output of approximately \$57 million.

Table 2 identifies the ten industries that will experience the largest increase in job growth from the HOPE VI program in Covington. Other industries will see growth; however, our goal is to highlight the effects in the ten industries expected to see the most growth. The direct effect of the \$42 million investment into the Covington project is potential job growth in the local economy. This growth includes 125 jobs in construction of new residential structures and 116 in maintenance and repair of existing residential structures. The creation of employment opportunities in these two industries equates

Table 1. Impact summary of number of jobs that will be created from HOPE VI construction in Covington, KY.

	Total employment (number of jobs)	Total labor income	Total value added	Output
Direct effect	242	\$19,792,734	\$22,166,145	\$41,958,879
Indirect effect	43	\$1860,109	\$2689,081	\$4549,190
Induced effect	95	\$3497,138	\$7012,945	\$10,510,083
Total effect	380	\$25,149,981	\$31,868,171	\$57,018,152

Sector	Description	Total employment (number of jobs)	Total labor income	Total value added
37	Construction of new residential permanent site/ single multiple structures	125.3	\$8669,818	\$10,048,560
40	Maintenance and repair construction of residential structures	116.5	\$11,147,734	\$12,144,622
413	Food service and drinking establishments	15.8	\$328,633	\$484,937
324	Retail stores: food and beverage	10.8	\$283,211	\$402,391
360	Real estate establishments	10.3	\$124,297	\$756,438
320	Retail stores: motor vehicle and parts	6.4	\$339,582	\$372,378
331	Retail stores: direct and electronic sales	6.3	\$91,210	\$153,357
398	Nursing and residential care facilities	5	\$173,014	\$200,196
369	Architectural, engineering, and related services	4.9	\$300,583	\$305,898
397	Private hospitals	4.6	\$316,205	\$341,247

Table 2. Top ten industries for employment in Covington, KY.

to 241 new jobs in Covington. These jobs are a direct result of the initiative to build, renovate, and revitalize the area.

In terms of job creation, we predict the residential construction industry would experience an approximately \$9 million increase in labor income, and the maintenance industry would see an approximately \$11 million increase in labor income – totaling an estimated \$20 million increase in labor income as a direct effect. The total value added for these two industries is approximately \$22 million, an estimated \$10 million from the residential construction industry and \$12 million from the maintenance industry.

The remaining eight industries represented in Table 2 will see job growth consequent to the indirect and induced effect of the HOPE VI program. Food services and drinking establishments will see the largest increase out of the seven remaining categories, with the creation of 16 new jobs, \$328,633 in labor income, and add \$484,937 in value to these industries. The next largest increase in job growth would be in retail food and beverage, which will increase employment by 11 jobs, increase labor income by \$283,211, and add \$402,391 in value to these industries. Real estate establishments would experience an increase of 10 jobs, an increase of \$124,297 in labor income and add \$756,348 in value to this industry.

Furthermore, retail for motor vehicles and parts was expected to add six positions, increasing labor income by \$339,582 while adding \$372,378 in value of the industry. Retail stores for electronics would increase their employment by six, causing labor income to increase by \$91,210 for this sector, adding over \$153,000 in value to the industry. Nursing and residential care facilities would experience an increase of five employees, and labor income for this sector would increase by around \$173,000. The value added to this sector would be around \$200,000.

Architectural, engineering, and related services were expected to see an increase in employment by five. Around \$300,000 will be added to the industry's labor income, and it will experience an increase in value of almost \$306,000. Finally, private hospitals were expected to experience an increase of five employees, and labor income for this sector would increase by \$316,205. The value added to the sector would be \$341,247.

In addition to neglecting to include job multipliers in HOPE VI evaluations, evaluators also often fail to look at the one group who gets the jobs: individuals without a high school diploma, who have one of the highest unemployment rates for any group. We predicted that 81% of the jobs created would go to individuals who have an education attainment of a high school diploma or less (Clinch, 2011). Moreover, a disproportionate percentage of these jobs (40%) would go to minorities, which is evident on the job sites. Roughly half of these jobs would have retirement benefits. Two-thirds of the jobs created would teach skills for job training, while 19% of the jobs would go to people with college diplomas (Clinch, 2011; Gilderbloom & Meares, 2013).

State and local taxes from the project would total more than \$1.7 million in additional revenue for the city of Covington. The largest gains in tax revenue would come from the indirect business tax (approximately \$927,000), followed by approximately \$757,000 in tax revenue from newly created households (income tax, motor vehicle licenses, property taxes, etc.), and \$76,000 in revenue from corporate taxes.

Although we calculated the estimated effect from the initial investment of \$42 million into the Eastside neighborhood, we expected that homeowners and business owners, inspired by the revitalization, would invest more money in the community. Most likely, new businesses would be drawn to the revitalized neighborhood, which would create more jobs and cycle more money through the local economy.

Another project that seeks to produce jobs for the local economy is the new \$800 million Ovation development. Located in Newport and built on the former Newport public housing site and 400 yards from Covington, the Ovation project would result in 9608 additional jobs, according to the IMPLAN model. At the time of publication, the developer Corporex continues to pay taxes on the property and plans to build the development in 2016.

#### Conclusion

HOPE VI has generated thousands of jobs in Covington and Newport, KY. We predict, conservatively, that the demolition of the Jacob Price public housing neighborhood and the creation of the new River's Edge development will result in the creation of 720 jobs resulting in a \$56 million impact, while the impact from the Newport HOPE VI will result in 480 jobs from the investment. We believe this estimate is much more reliable and realistic than older PEIM estimates, which triple the job creation of the other models. Our research also shows that community development investment creates twice as many jobs as freeway expansion (7 jobs per million) or investment in expanding an industry, like an automobile plant (5 jobs per million) (Gilderbloom et al., 2009; Gilderbloom et al., 2008; Gilderbloom et al., 2014).

Despite the vast literature concerning HOPE VI over the past 20 years, no study has attempted to document the impact of the HOPE VI development on job creation and its potential economic impact on the community. This study contributes uniquely to the literature on renewing neighborhoods with jobs while providing attractive and affordable housing that makes downtown living more sustainable. Further research should analyze the leveraging effects of federal government intervention programs like HOPE VI. Additionally, the success of Newport and Covington should encourage small cities to seek federal program funding, and to use that funding to leverage other private investments that will improve the housing of the city, creating needed jobs for poorly educated persons with high unemployment.

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#### Note

Below are the definitions of key terms used for the IMPACT analysis, provided by Minnesota 1 IMPLAN Group: Direct effect: The set of expenditures applied to the predictive model for impact analysis. It is a series (or single) of production changes or expenditures made by producers/consumers as a result of an activity or policy. These initial changes are determined by an analyst to be a result of this activity or policy. Indirect effect: The impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy, either through imports or by payments to value added. Induced effect: The response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added. IMPLAN's default multiplier recognizes that labor income (employee compensation and proprietor income components of value added) is not a leakage to the regional economy. This money is recirculated through the household spending patterns causing further local economic activity. Labor income: All forms of employment income. including Employee Compensation (wages and benefits) and Proprietor Income. Total value added: The difference between an industry or establishments' total output and the cost of its inter-mediate inputs. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). Value added consists of compensation of employees, taxes on production and imports less subsidies and gross operating surplus. Output- Output represents the value of industry production. In IMPLAN these are annual production estimates for the year of the data-set and are in producer prices. For manufacturers this would be sales plus/minus change in inventory. For service sectors production equals sales. For Retail and wholesale trade, output equals gross margin and not gross sales.

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