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## The Impact of Prevailing Wage Requirements on Affordable Housing Construction in New York City

After the Independent Budget Office released its report on the impact of expanding prevailing wage requirements on January 11, 2016 we discovered problems with the data provided to IBO by the Department of Housing Preservation and Development (HPD). Correcting the erroneous data significantly alters our previously published findings. Using the corrected dataset, IBO again compared the construction budgets of projects that were subject to federal prevailing wage requirements with other publicly subsidized affordable housing projects that were not required to pay prevailing wages while controlling for various project characteristics. The revised results are described in this report.

**Prevailing Wages Increase Total Construction Costs by an Estimated 23 Percent.** IBO used multivariable linear regression to estimate the impact of requiring prevailing wages on the cost of city-subsidized residential development in New York City. IBO estimates that the average total construction costs for a project requiring prevailing wages is 23 percent higher than a project where prevailing wages are not required.<sup>1</sup> (Click [here](#) for details on current prevailing wage laws, which set hourly wage and fringe rates by construction trade.) Regression analysis allows for a comparison of construction costs for prevailing wage and non-prevailing wage projects, while controlling for differences in other characteristics that may also influence construction costs; these other characteristics include the share of the total project units reserved as affordable housing, the number of affordable units in the project, unit size, inclusion of enclosed parking, building height, the number of financing sources, geographical location, and the year the project was financed. Total construction costs refers to all development costs other than costs associated with land acquisition—construction hard costs, soft costs, developer fees, and project reserves.<sup>2</sup> (Click [here](#) for more information on the data and methodology used in this analysis.)

**Requiring a Prevailing Wage Would Increase Housing Plan Costs by an Estimated \$4.2 Billion.**

Based on IBO’s estimate of the impact of prevailing wages on total costs and the median total cost per unit in our study, requiring prevailing wages translates to an estimated per unit cost increase of nearly \$80,000. To maintain the de Blasio Administration’s plan for constructing a total of 80,000 new

Summary of Projects and Units in Revised Data Set							
		Fiscal Year					
		2010	2011	2012	2013	2014	2015
Non-Prevailing Wage	Projects	25	19	14	23	22	39
	Affordable Units	2,102	2,910	1,242	3,030	2,894	4,123
Prevailing Wage	Projects	16	8	15	12	9	9
	Affordable Units	1,158	867	946	1,037	871	977

SOURCE: IBO analysis of Department of Housing Preservation and Development data

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<b>Model 1-Impact of Prevailing Wages on Total Project Costs</b>		
<b>Dependent Variable: Log of Total Project Costs</b>		
<b>Variable</b>	<b>Parameter Estimate</b>	<b>Standard Error</b>
Requires Prevailing Wages	0.20602	0.03024***
Percent Affordable	-0.00760	0.00168***
Log Affordable Units	0.92139	0.02204***
Average Unit Size (Square Feet in 100s)	0.05232	0.00675***
Senior Housing	-0.09230	0.03960**
Enclosed Parking	0.07362	0.02649***
Low-Rise Project	-0.01605	0.04406
High-Rise Project	0.13198	0.06764*
Number of Financing Sources	0.04470	0.00638***
Northern Manhattan	0.01829	0.05804
Bronx	-0.11760	0.04579**
Outer Brooklyn	-0.05844	0.04723
Queens	-0.12136	0.04979**
Staten Island	-0.06216	0.08229
Year 2010	-0.02759	0.04104
Year 2011	-0.02638	0.03766
Year 2012	-0.12522	0.03816***
Year 2013	-0.10252	0.03654***
Year 2014	-0.01443	0.03499
Constant	13.17863	0.20454***
N	211	
R-Squared	0.9568	
SOURCES: IBO analysis of Department of Housing Preservation and Development and Department of Buildings data		
NOTES: One asterisk (*) denotes statistical significance at the 10 percent level, two asterisks (**) denote statistical significance at the 5 percent level, and three asterisks (***) denote statistical significance at the 1 percent level. Low-rise and high-rise projects are relative to a mid-rise project, geographical parameter estimates are relative to core Manhattan and Brooklyn locations, and year parameter estimates are relative to 2015.		
<i>New York City Independent Budget Office</i>		

### Correcting Our Report

After publication of the January 2016 report, errors in the data identifying prevailing wage projects came to IBO's attention. Twelve projects totaling 1,154 units that required prevailing wages were incorrectly flagged in the data as not requiring them by HPD, which tracks the city's affordable housing programs and in many cases is responsible for monitoring compliance with prevailing wage laws on these projects.

IBO has since independently examined regulatory agreements between the project sponsors and HPD for projects that could potentially have been required to pay prevailing wages to verify the status of each project. HPD has also completed its own review of the prevailing wage status of affordable housing projects, as well as confirmed the projects IBO identified. In addition to correcting the prevailing wage status for the 12 projects, an additional prevailing wage project was added to the dataset after previously missing data was made available. The resulting revised dataset consists of 211 new construction housing projects with a total of 22,157 affordable units financed from fiscal years 2010 through 2015, including 69 prevailing wage projects with 5,856 units.

affordable housing units, a requirement to pay prevailing wages would necessitate roughly \$4.2 billion in additional financing. This assumes that 20 percent of the 66,000 new units of housing that remain to be financed under the Mayor's plan as of the end of calendar year 2015 would already necessitate prevailing wages under federal requirements and that prevailing wage laws are expanded to cover all other projects. This estimate does not include any additional funding for preservation construction projects that may also be impacted by prevailing wage rules.

**Share of Affordable Units, Building Size, Location, and Other Factors Influence Development Costs.** Beyond the impact of prevailing wages, our regression results identified other factors that affected development costs. Controlling for other project characteristics, buildings with a higher share of units reserved as affordable have, on average, lower construction costs than similar buildings with a lower share of affordable apartments. For example, we estimate that total construction costs are 14 percent lower for a project where 100 percent of the units are designated affordable than for a project where only 80 percent of the units are affordable.

The regression results also suggest that there are modest economies of scale for projects containing more units, as shown by the coefficient of 0.92 for the variable representing the number of affordable units in the project (log affordable units), indicating that in percentage terms, costs do not increase proportionately with an increase in the number of units. Our results also indicate that adding an additional 100 square feet to the average unit size (an increase of 11 percent), raises the total cost of a project by 5 percent. Kitchens and bathrooms are the most expensive pieces of an apartment to build in terms of cost per square foot, so expanding the average square feet in an apartment through increasing the size of the living rooms or bedrooms would have relatively less of an impact on construction costs.

Development projects built specifically for seniors cost an average of 9 percent less than a building not specifically designated for seniors. IBO estimates that affordable housing projects with enclosed parking cost an estimated 8 percent more to build, on average, than projects with either no parking or open lot parking. The number of financing sources funding a project is estimated to add to total construction costs, with each additional source of financing increasing costs by an average of 5 percent, likely attributable to higher administrative costs.

Even with land acquisition costs excluded from the analysis, projects in Queens and the Bronx are less expensive to build than similar projects in the city's most expensive residential neighborhoods of Manhattan and Brooklyn; total construction costs in both Queens and the Bronx are lower by an average of 11 percent. This may result from it being less expensive to build in lower-density areas of the city, or this cost difference may reflect the share of projects in those boroughs that use union labor.

**Prevailing Wages Increase Construction Hard Costs by an Estimated 28 Percent.** While the impact of prevailing wages on total costs is relevant to the policy discussion related to the Mayor's affordable housing goals, the impact of prevailing wages most prominently effects a project's hard costs of construction. IBO estimates that prevailing wages increase construction hard costs by 28 percent.<sup>3</sup> The estimated increase in hard costs does not fully translate to total project cost, as hard costs only make up a portion of the total costs. While some of the higher wage costs on prevailing wage projects may be offset by cutting costs elsewhere in the budget, such as lower returns on the developer's investment, other areas of a project's budget may increase due to increased administrative overhead to comply with prevailing wage scheduling and reporting requirements.

**Other Considerations.** Higher construction costs associated with the requirement of prevailing wages is just one factor within the larger debate over affordable housing construction. The data used in this analysis do not allow us to examine how prevailing wage requirements affect worksite safety, the timeliness in which projects reach completion, or the use of union labor. Proponents of prevailing wages argue that requiring prevailing wages reduces instances of wage theft, ensures fair pay for what can be dangerous work, and yields higher quality buildings built more quickly by better-trained workers. Opponents argue that prevailing wages unnecessarily increase construction costs and that the reporting requirements and work schedules slow projects down without improving building quality. They argue that, with limited public resources, less affordable housing will be built if prevailing wages were to be required. All of these assertions are outside the scope of our analysis.

<b>Model 2—Impact of Prevailing Wages on Hard Costs of Construction Dependent Variable: Log of Construction Hard Costs</b>		
<b>Variable</b>	<b>Parameter Estimate</b>	<b>Standard Error</b>
Requires Prevailing Wages	0.24850	0.02890***
Percent Affordable	-0.00661	0.00168***
Log Affordable Units	0.90945	0.02093***
Average Unit Size (Square Feet in 100s)	0.05949	0.00613***
Senior Housing	-0.07791	0.03103**
Enclosed Parking	0.09614	0.02600***
Low-Rise Project	0.00009	0.04466
High-Rise Project	0.19758	0.06123***
Number of Financing Sources	0.02521	0.00634***
Northern Manhattan	-0.04171	0.05639
Bronx	-0.14057	0.04534***
Outer Brooklyn	-0.10219	0.04829**
Queens	-0.19079	0.04851
Staten Island	-0.03349	0.09249
Year 2010	-0.07255	0.03847*
Year 2011	-0.03801	0.03757
Year 2012	-0.13357	0.03846***
Year 2013	-0.12453	0.03932***
Year 2014	-0.04671	0.03562
Constant	12.90510	0.19922***
N	207	
R-Squared	0.9584	
SOURCES: IBO analysis of Department of Housing Preservation and Development and Department of Buildings data NOTES: One asterisk (*) denotes statistical significance at the 10 percent level, two asterisks (**) denote statistical significance at the 5 percent level, and three asterisks (***) denote statistical significance at the 1 percent level. Low-rise and high-rise projects are relative to a mid-rise project, geographical parameter estimates are relative to core Manhattan and Brooklyn locations, and year parameter estimates are relative to 2015. <i>New York City Independent Budget Office</i>		

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## Endnotes

<sup>1</sup>The confidence interval for the prevailing wage parameter estimate at an alpha level of 0.05 is between 16 percent and 30 percent. Robust standard errors were used. Because the dependent variable is the natural log of total project costs, the percentage change in cost is interpreted as the exponentiated coefficient on that variable.

<sup>2</sup>A total of 71 projects received free land or paid \$1 per lot. Some projects appear to have paid for land, but at less than the market rate, while other projects paid market-rate prices of up to \$34 million. Converting land prices into inflation-adjusted dollar terms is problematic, as land prices fluctuate year to year in ways that are not reflected in standard price indices. Given such variation, land acquisition costs were found to create more noise than value in the analysis, and were ultimately not included in the total cost regression model.

<sup>3</sup>The confidence interval for the prevailing wage parameter estimate at an alpha level of 0.05 is between 21 percent and 36 percent. Robust standard errors were used.