
IMT Research on Jobs from Energy Codes

The majority of the direct jobs secured by improvements to energy efficiency in the building code are in construction-related fields (for a list of relevant construction-related jobs, see below). These jobs will likely be distributed across all skill levels, from entry-level laborers and technicians to senior engineers. Many construction workers will need to acquire new job skills to make buildings more efficient and will in turn see their incomes increase as they provide increasingly valuable services.

The Bureau of Labor Statistics reported 968,660 employees in residential construction, with mean annual wages at \$43,740 annually in May of 2007. Construction costs on an average single-family residence were split as 47% labor and 53% materials¹. Advanced building energy codes would shift construction costs away from materials and towards labor, as more efficient buildings have lower materials costs and smaller mechanical systems but are a little more labor intensive during design and construction. Assuming a similar trend in the commercial construction sector, a 1% shift in cost from materials to labor would yield over 20,000 new green jobs. A 2% shift would yield over 40,000 new green jobs. These estimates are very conservative. They do not include new jobs for building departments themselves. Nor do they include indirect and induced jobs, which would multiply the job impacts.

Adoption and enforcement of advanced energy codes would create new green jobs across America and across all skill levels, including in the following job categories:

- Architects
- Carpenters
- Construction laborers
- Helpers-Carpenters
- Brick masons, stonemasons, block masons
- Cement masons and concrete finishers
- First-line supervisors
- Construction managers
- Operating engineers and construction equipment operators
- Plumbers, pipefitters, and steamfitters
- Heating, air conditioning, and refrigeration mechanics and installers
- Roofers
- Electricians
- Painters, construction and maintenance
- Construction and building inspectors
- Engineers
- Glaziers
- Cost estimators
- Insulation workers
- Energy modelers

¹ Institute for Market Transformation (IMT) cost model based on 2009 RS Means data
