



Economic Policy Institute

Infrastructure Investment and Job Creation

*** Preliminary Results: Do not quote or circulate without permission ***

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Overview

- Broad labor market conditions (unemployment, wages, incomes, etc) have immediate impact on low-income families and communities.
 - E.g. poverty, health outcomes, educational attainment, etc.
- Assess possible impact of ARRA on labor market
 - Focus on construction
- Assess Job impact of Investment in infrastructure/construction



INFRASTRUCTURE, CONSTRUCTION AND THE LABOR MARKET

Impact of ARRA



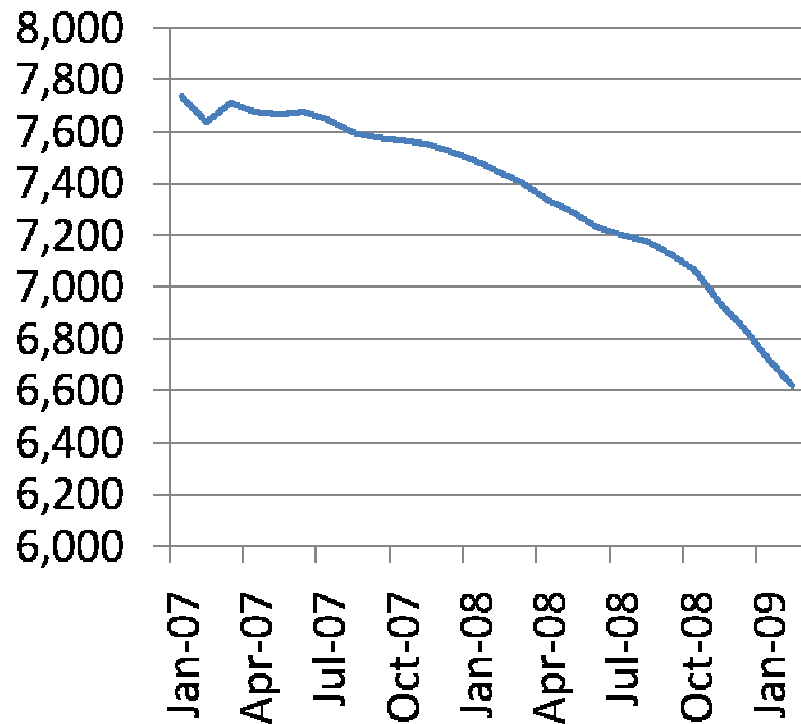
National

- Huge slack in labor market
 - 3.2% contraction of total nonfarm labor force since peak in Dec 2007 (~4.4 million job losses)
- Construction has been falling faster, and for longer.
 - Since peak in Jan 2007, 1.1 million jobs lost in construction, a 14.5% contraction in total construction labor force.
 - Since recession started in Dec 2007, 904,000 jobs lost in construction, a 12% contraction.
 - The demand in the construction labor market has dropped by just less than 4 times as much as the overall labor market.
 - Construction job losses represent 21% of the job losses in the last year and 1/3 of the job losses in the past two years, despite being only about 5.5% of the labor force (now just 4.9%).
 - Dynamic is mirrored in construction subsectors,
 - Nonresidential Construction (down -9.5% since peak in March 2008), and
 - Heavy and Civil Engineering Construction (down -8.6% since peak in Jan 2007)

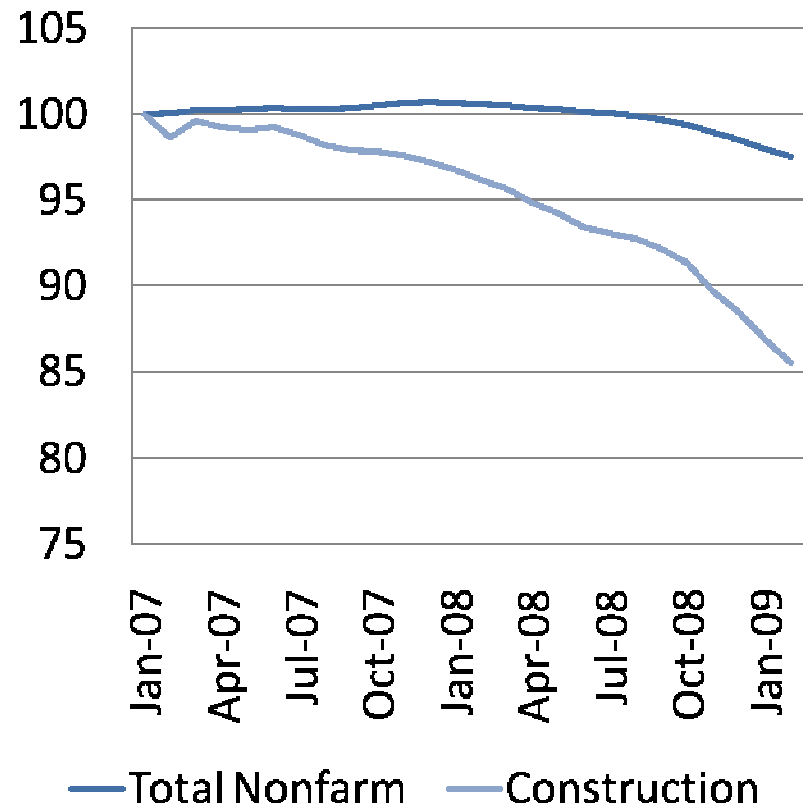


Job loss since Jan 2007

Construction



Net Payroll Losses





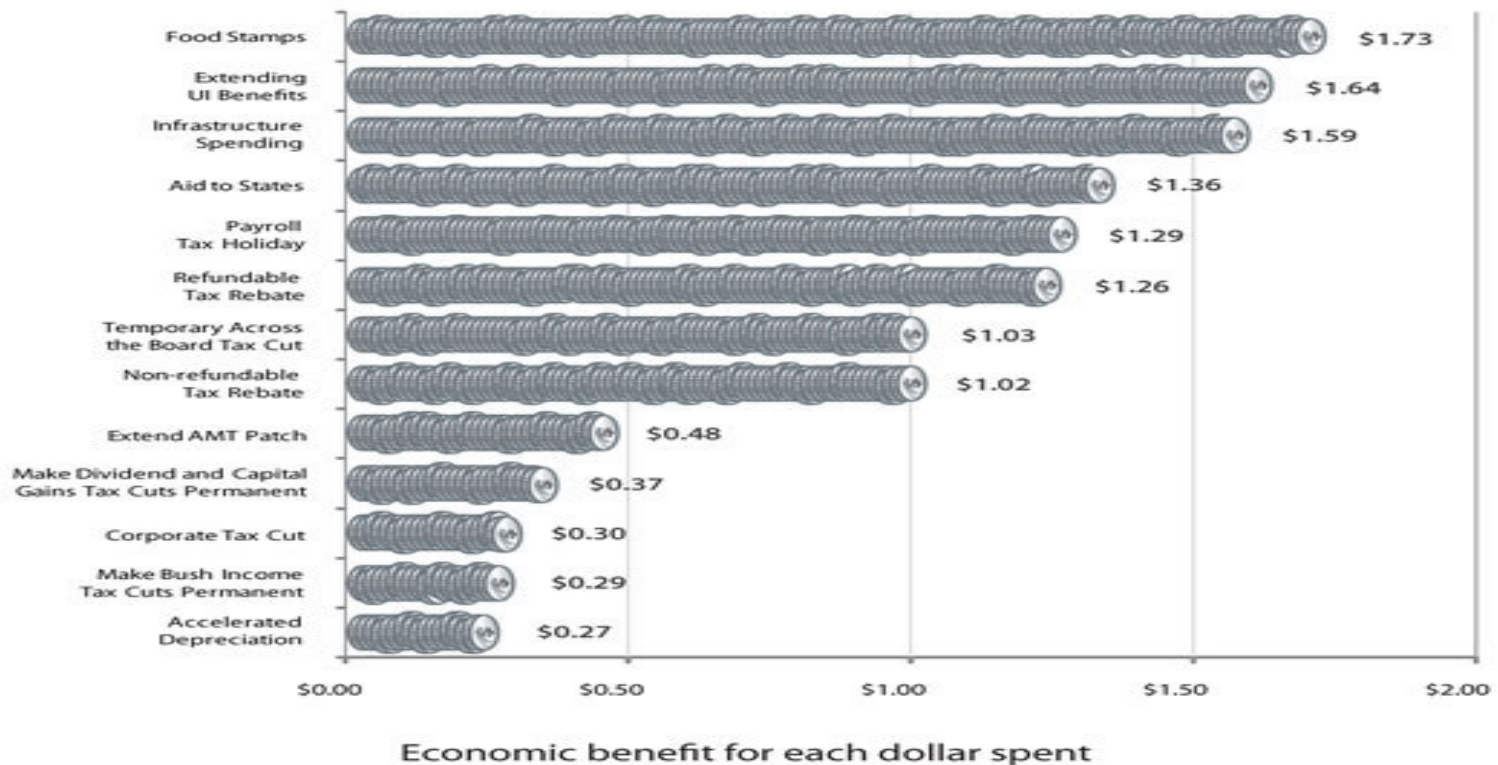
American Recovery and Reinvestment Act (ARRA)

- ARRA projected to create 3 to 4 million jobs
 - However, 4.4 million jobs lost so far
- Construction:
 - About \$100 billion is directed towards infrastructure (“green and transport”)
 - Another \$144 billion goes to state and local fiscal relief
 - Certain tax relief provisions—such the Build America Bonds—incentivize private infrastructure investment.



Infrastructure Investment and Jobs: The Short (run) of It

Economic benefits of various stimulus provisions



Source: Mark Zandi from Moody's Economy.com



Net Job Creation

- Roughly \$120 billion in infrastructure investment in ARRA
- Multiplier of 1.6 => \$192 billion in GDP
- 1.3% of GDP => 1.3 million jobs
- 1.3 million jobs => -0.85% off UR
- Every 0.85% off the aggregate rate =>
 - 2% off African-American unemployment rate
 - 1.3% off Hispanic unemployment rate



Will ARRA Infrastructure Be Better than Generic?

- Probably – 2 kinds of investment are better than generic investments
- “Fix-it-First” and Public Transport
 - Both have lower land and capital costs and are more labor-intensive than generic infrastructure
 - Future Stimulus (?) should think about including temporary operating help for local transit systems



Impact of ARRA

KINDS OF JOBS CREATED



Research Question

- Motivation:
 - Almost-uninterrupted 30-year rise in hourly wage inequality (full-employment late 1990s excepted)
 - “College premium” up 30 pct points since 1979
 - Unionization rates down from 27 to just over 12%
- Can federal infrastructure investments lean against these trends?
 - How many jobs are created?
 - What kinds of jobs are created?



Methodology

- Merge industrial data on input-output relationships and household-level data on demographics, including:
 - *Race, Gender, Education, Wage, Unionization*
- Only direct and supplier jobs,
 - *Current analysis of job impacts does not include jobs from re-spending*



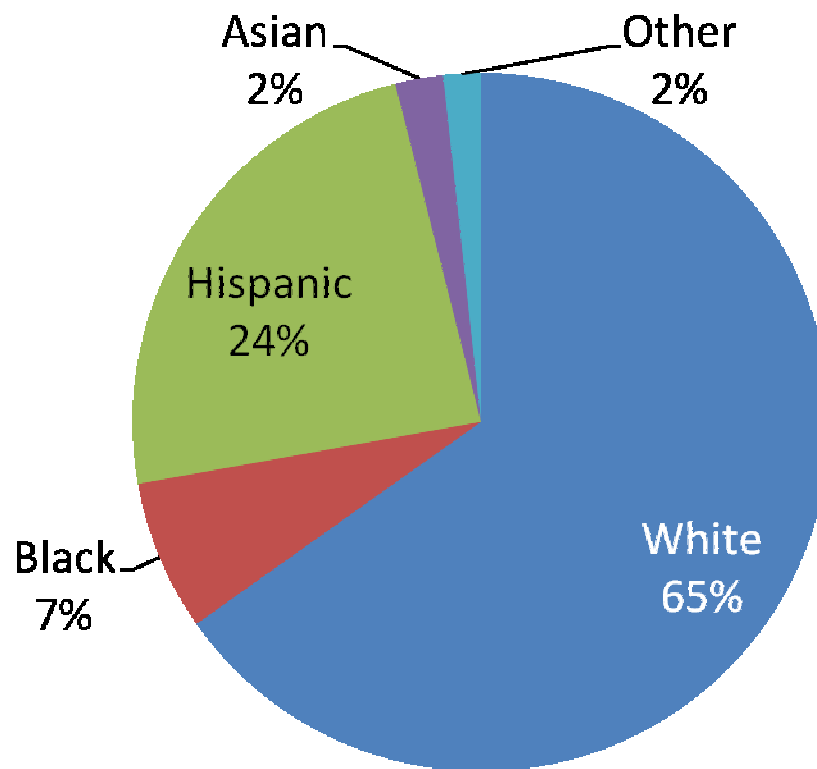
Job Creation by the Numbers

- \$200 billion/2 years in construction spending would create
 - More than ARRA, was our ‘base-case’ test of jobs model
 - 2.2 million new direct and supplier jobs, of which
 - 770,000 are directly created in the construction sector and
 - 1.4 million in supplier industries.



Job Creation by Race

The jobs created through \$200 billion in construction spending skew heavily Hispanic, as this group constitutes almost a third of construction employment (as compared to roughly 14% of total employment). The supplier jobs do not differ much from economy-wide averages, thus the Hispanic share of the jobs created are approximately $\frac{1}{4}$ of the total. The white share accounts for 65 percent, while the black share accounts for 7 percent.



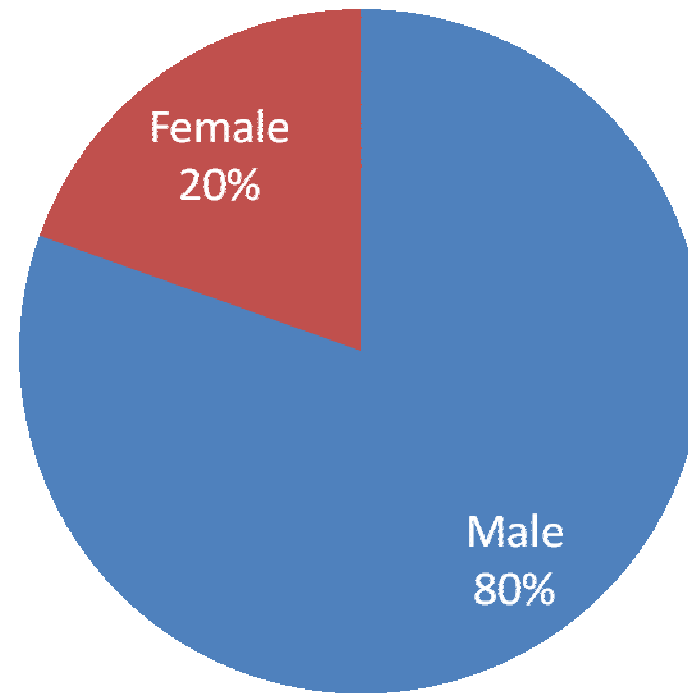
	White	Black	Hispanic	Asian	Other
Total	1,403,883	150,447	515,184	47,673	37,327
Share	65.2%	7.0%	23.9%	2.2%	1.7%



Job Creation by Gender

The jobs created through \$200 billion in construction spending skew heavily male - 80%. This is largely due to the overwhelmingly male character of the direct jobs created in construction, where current jobs are over 90% male.

The largest bloc of supplier industries for construction output is the manufacturing sector, which is also predominantly male (70%) and partly as a result even supplier jobs from this spending skew male - 63% to 37%.



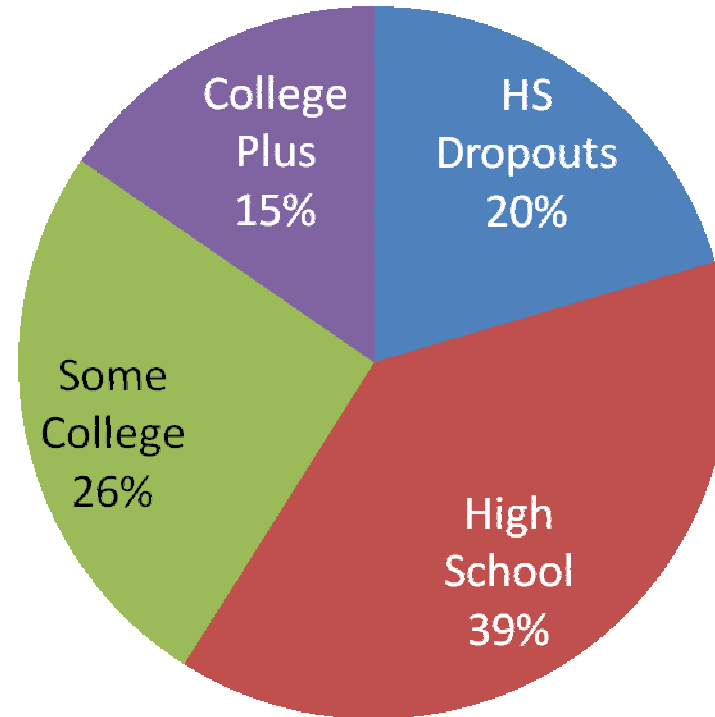
	Male	Female
Total	1,734,360	420,154
Share	80.5%	19.5%



Job Creation by Education

The jobs created through \$200 billion in construction spending would skew heavily away from workers with a 4-year college degree with only 15.4% of the jobs occupied by a worker with a college degree or greater, compared to roughly 29% in the overall economy.

The construction workforce currently has less than 10% of workers with a 4-year degree, and, even the supplier jobs created through construction spending skew away from those with college degrees with only 25.4% of the workforce in this industry having completed 4 years of college.



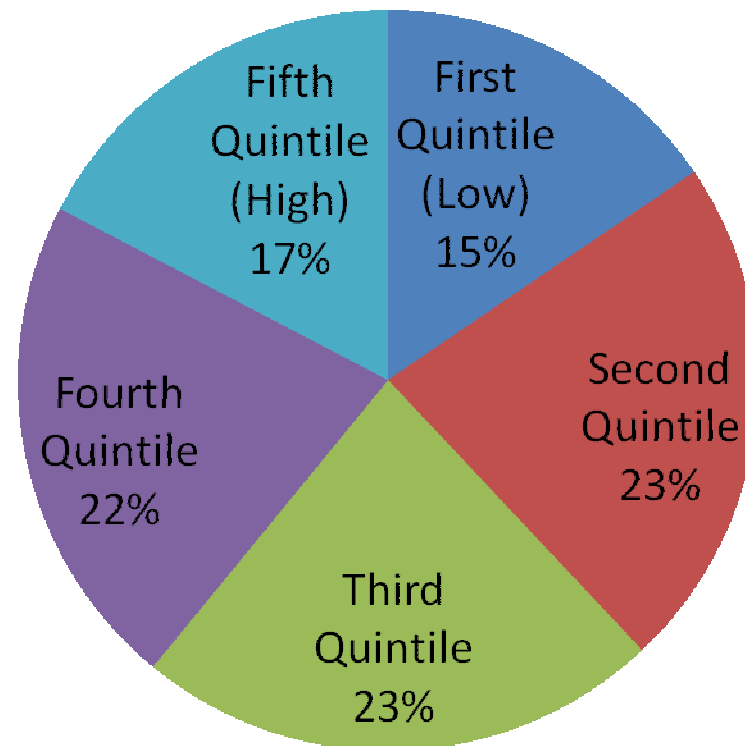
	HS Dropout	High School	Some College	College Plus
Total	440,098	829,675	553,241	331,499
Share	20.4%	38.5%	25.7%	15.4%



Job Creation by Wage

The jobs created through \$200 billion in construction spending would bunch in the middle of the wage distribution, with relatively few low-wage and high wage jobs (defined as the bottom and the top 20% of the overall wage distribution).

This pattern is driven by the construction sector itself, with supplier jobs unsurprisingly mirroring the overall averages in wage levels.

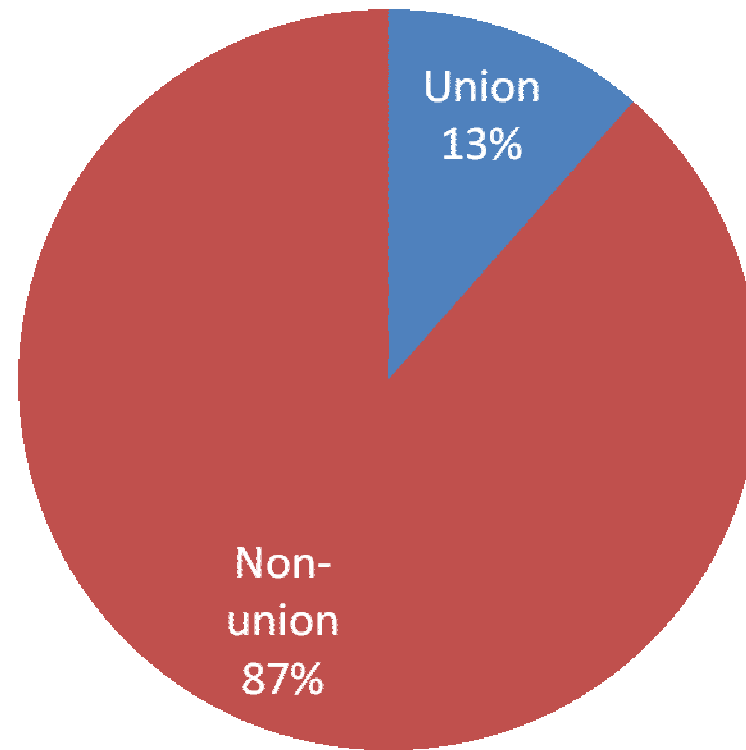


	1 st Quintile	2 nd Quintile	3 rd Quintile	4 th Quintile	5 th Quintile
Total	333,692	485,123	493,615	468,656	373,428
Share	15.5%	22.5%	22.9%	21.8%	17.3%



Job Creation by Union

The jobs created through construction spending would employ more union members than the average that prevails in the private sector currently - 13% compared to 7.5%. Again, this number is driven by the large share of unionized workers in construction, where 15.6% of workers are currently union members. Supplier jobs roughly match the economy-wide average in union membership.



	Union	Non-Union
Total	294,287	1,935,160
Share	13.2%	86.8%



POLICY



Relative Wages?

- 2 ways this spending pushes in the right direction against wage inequality
- Increased demand for non-degreed workers
- Increased Unionization
- \$100 billion spent in construction =>
 - 0.5% rise in non-degree relative wage
 - Modest yes, but, raise for non-college workers equivalent to 15% of the entire raise since 1979



Policy Options to Address Infrastructure Investment Downsides

- Infrastructure jobs do skew heavily male, non-union, and away from African-Americans
 - Analysis does not differentiate between commercial and residential construction, so this could effect our findings



Policy Options

- Expanding jobs to communities in need, including
 - Community Benefit Agreements (also known as Project Labor or Local Hire Agreements)
 - Local hire provisions
 - No strike/no lockout provisions
 - Mechanisms for dispute resolution
 - Prevailing wage provisions
 - Training and Apprenticeship Provisions
 - Dedicates % of total funding to workforce development initiatives
 - Utilizes existing capacity to train and prepare workers
- Further development, analysis, demonstration may be needed to further political prospects of these policies