

Conclusions of a National Academies Study Committee: Transportation Investments in Response to Economic Downturns

A study sponsored by the Transportation Research Board
of the National Research Council
Special Report 312
Spring 2014

Therese J. McGuire
Northwestern University

Presentation at the workshop on
Infrastructure and Economic Growth: Measuring the Impact and Funding Models
Federal Reserve Bank of Chicago
3 November 2014



Outline:

- Aims of the study
- Role of transportation spending in fiscal stimulus
- Managing transportation stimulus spending
- Recommendations

Sponsors: National Cooperative Highway Research Program and Transportation Research Board

Committee

Therese J. McGuire (*Chair*)
Northwestern University

Andrew Haughwout
Federal Reserve Bank of New York

Jay Alexander
Washington State DOT

Benjamin F. Jones
Northwestern University

William D. Dupor
Federal Reserve Bank of St. Louis

Nancy J. Richardson
Iowa DOT (retired)

Randall W. Eberts
W.E. Upjohn Institute for Employment
Research

Jay C. Shambaugh
George Washington University

Ronald L. Epstein
New York State DOT

Task Statement

Objective:

To aid Congress, state and federal transportation administrators in planning a stimulus program that may include transportation spending

Tasks:

- Describe experience with stimulus spending in general
- Determine value of transportation investments as stimulus
- Determine how to structure and manage a transportation spending stimulus program for greatest benefit

(Stimulus program: Package of extraordinary federal expenditures or tax concessions, funded by borrowing, to speed recovery from recession)

Committee did not assess effect of transportation expenditures on employment or growth in the long run

Public Works Stimulus Spending before ARRA

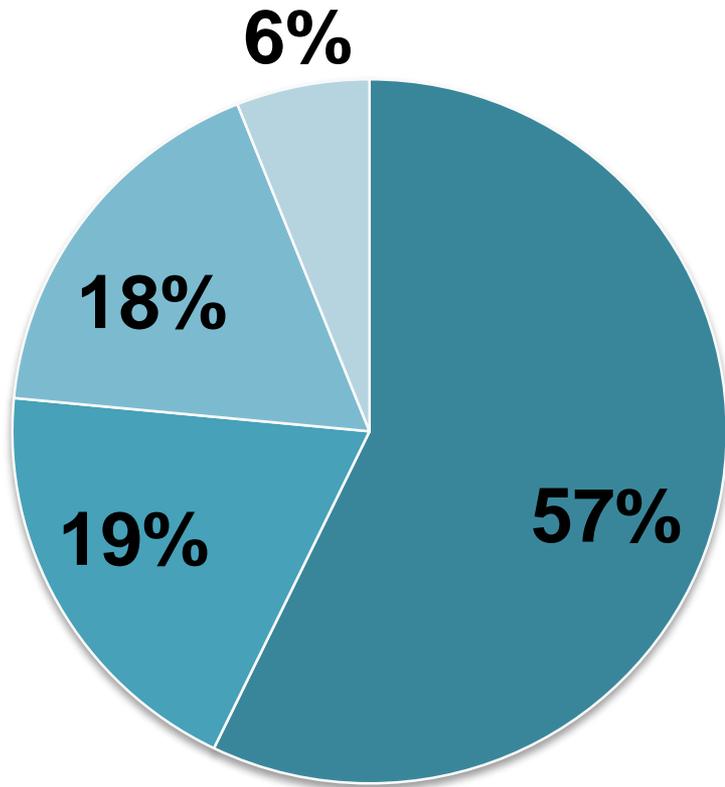
- Public Works Acceleration Act, 1962: \$0.9B for local projects, under the Department of Commerce
- *Accelerated Public Works Bill, 1971: \$2B in bill; vetoed*
- Local Public Works Program, 1976: \$6B for public works, under Economic Development Administration
- Emergency Jobs Appropriation Act, 1983: \$7.8 billion for public works, including \$0.9B under the Department of Transportation
- *Supplemental Appropriations Act, 1993: \$0.1B for public works (out of \$6B proposed by Administration)*

Public Works Stimulus Spending before ARRA (continued)

Evaluations of past spending programs [RAND (1978), GAO (1986)] found 3 objections:

- Spending was not timely
- State and local governments substituted federal funds for own
- Accelerating spending increased risk of poor project selection

USDOT-Administered Funds in ARRA



Total \$48.1 billion

- Highways:
\$27.5 billion
- Passenger rail:
\$9.3 billion
- Transit:
\$8.4 billion
- Other (aviation,
marine, TIGER):
\$2.9 billion

Administrative Rules for USDOT Funds in ARRA

- Apportionment of most funds by existing procedures
- Matching funds waiver
- Obligation & spending deadlines
- Maintenance of effort (MOE) requirement
- Distressed areas priority
- Data collection & reporting requirements

Conclusions

Three areas of focus:

1. Effectiveness of stimulus spending
2. Value of transportation spending in a fiscal stimulus program
3. Design of a transportation stimulus program

Conclusions (continued)

Effectiveness of stimulus spending

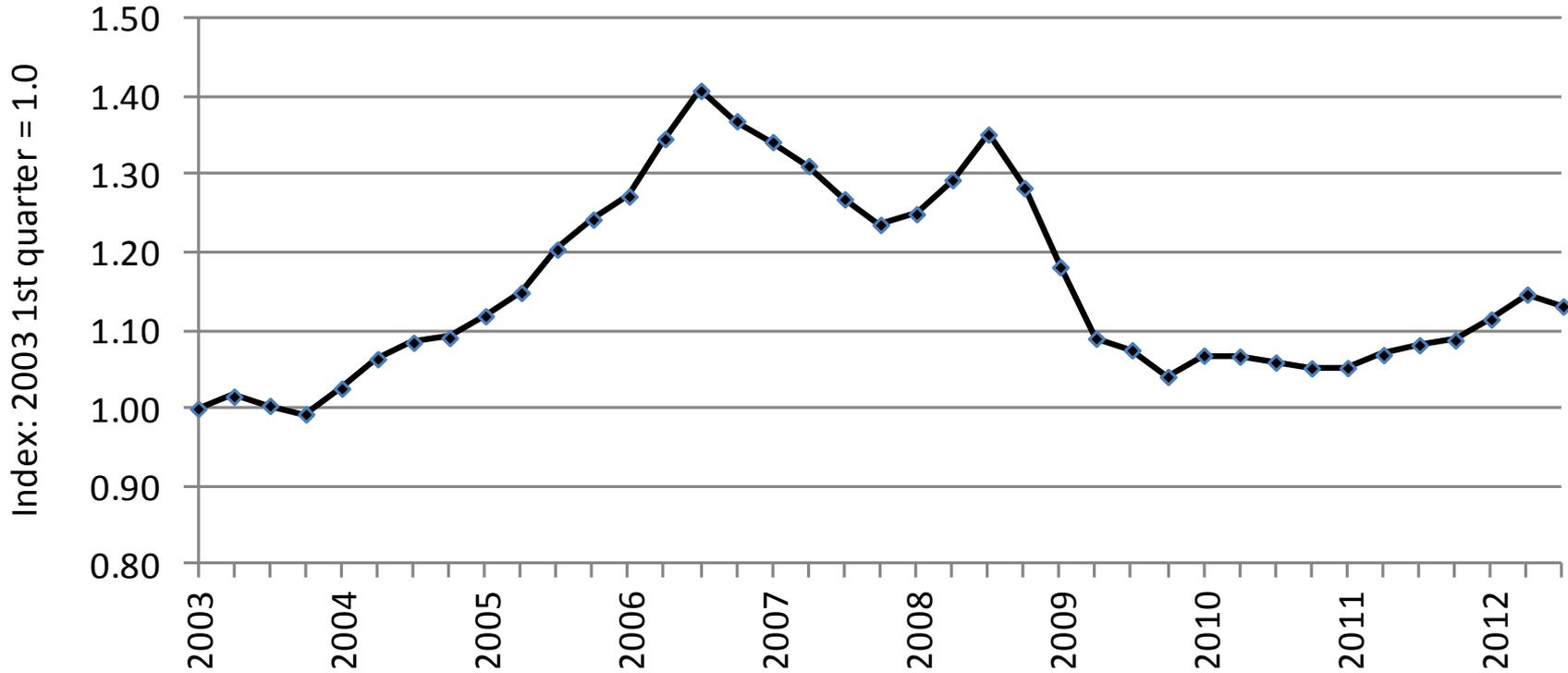
- Stimulus spending, during recession or period of high unemployment, and when monetary policy is maintaining low interest rates, increases GDP and employment, at least in the short run
- Estimates of the magnitude of the effect vary over a wide range (E.g., CBO's ARRA impact estimates cite range of 0.4 – 2.5 for spending multipliers)

Conclusions (continued)

Value of transportation spending in a stimulus program

- Once it is decided to undertake a stimulus program, transportation is appropriate as a component of a diversified program, especially if downturn is likely to be prolonged
- Justifications:
 - Provides benefit (transport services) regardless of size of stimulus impact
 - Diversifies the stimulus package
 - Expanding infrastructure raises expectations for growth, magnifying stimulus
 - Accelerating planned spending adds little to long-term debt
 - Construction prices lower in recession

FHWA Highway Construction Cost index

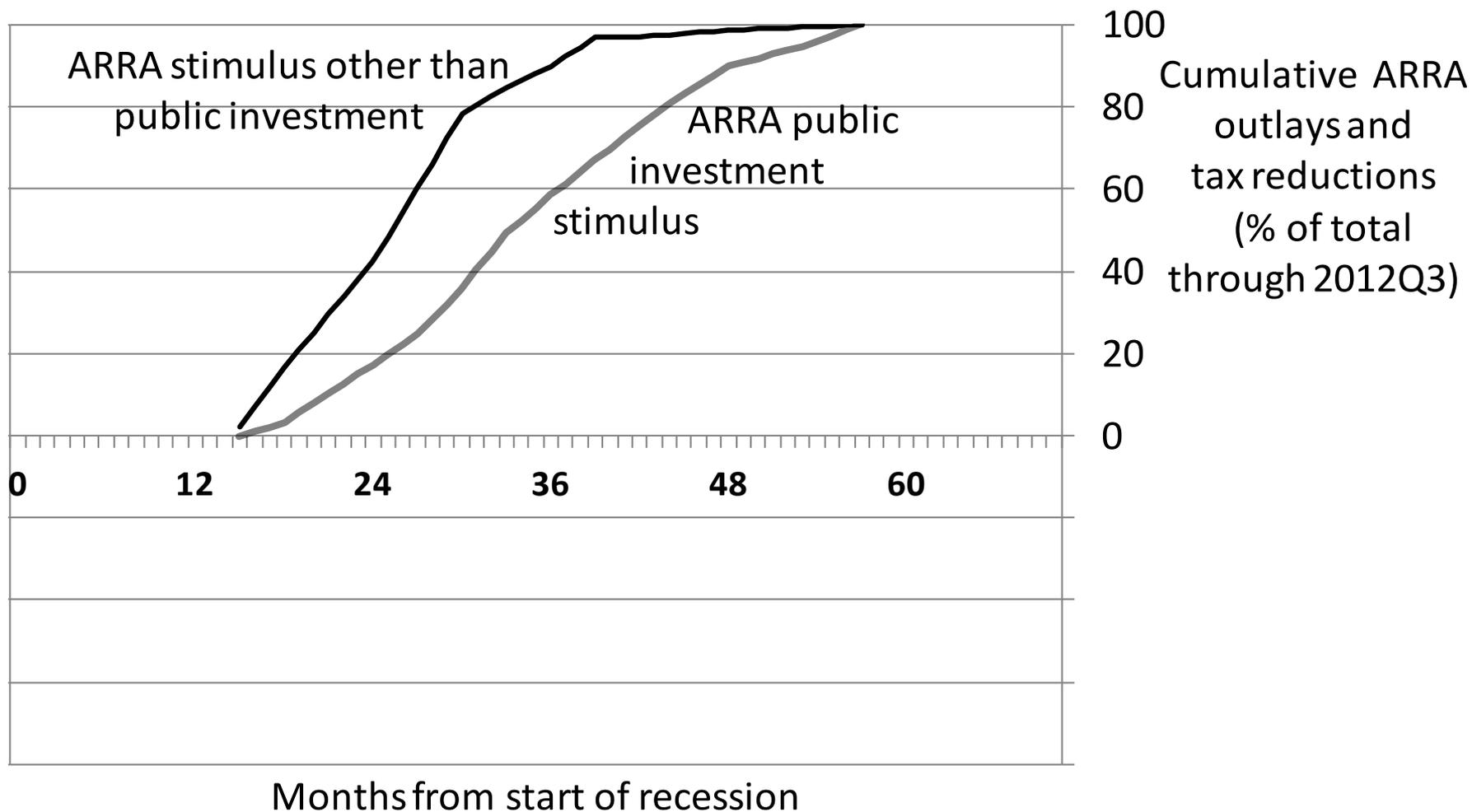


Conclusions (continued)

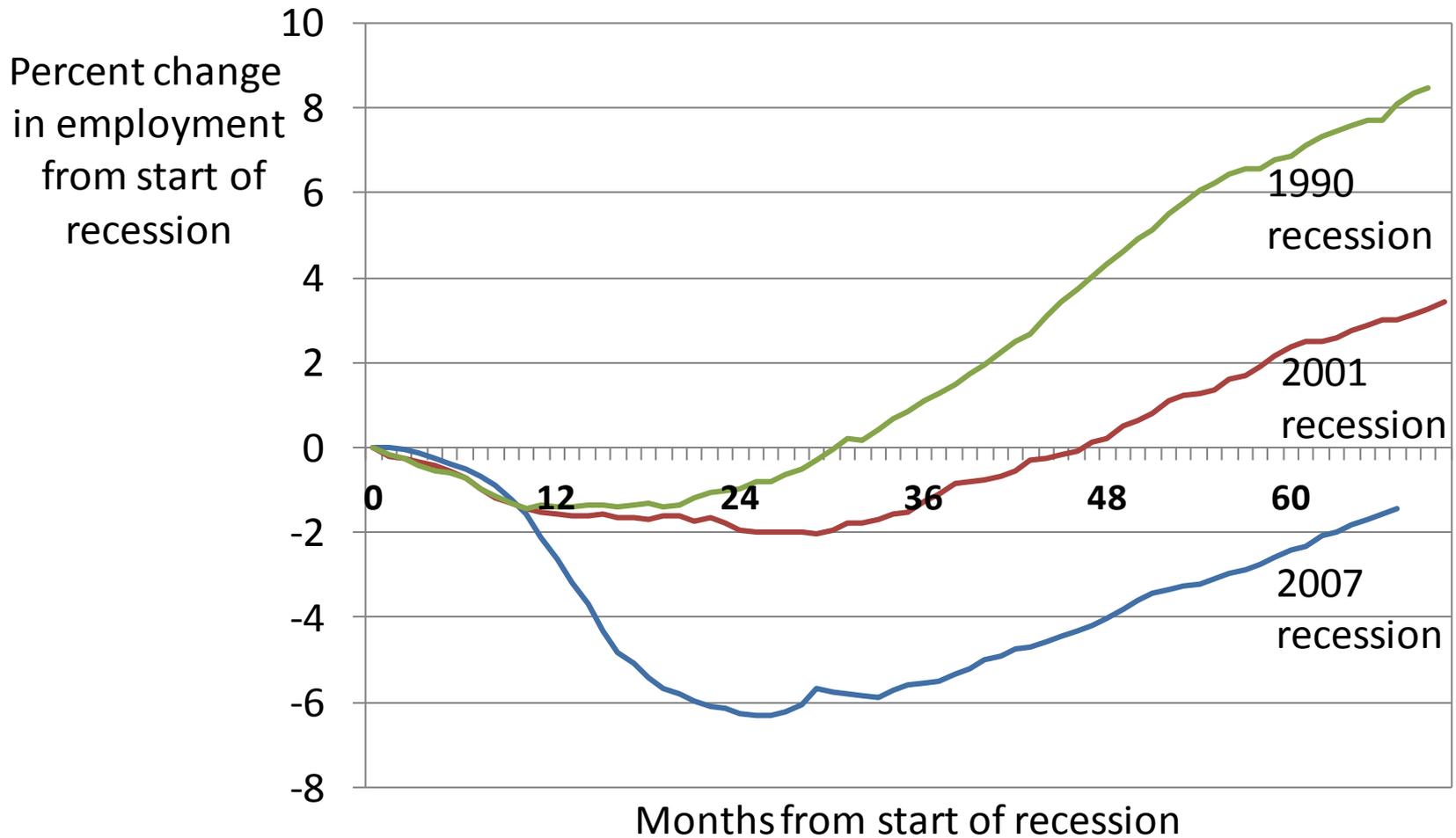
Value of transportation spending in a stimulus program (continued)

- For ARRA grants and 2009 conditions, objections raised with regard to past infrastructure stimulus programs were not as relevant
 - ***Timeliness***: Recovery protracted; future recoveries may be also
But, spending slow in new programs (TIGER, passenger rail)
 - ***Fiscal substitution***: Constrained by MOE rule & state trust funds
But, net effect of ARRA on state/local transportation spending uncertain
 - ***Risk of poor project selection***: Most projects already in plans
But, deadlines favored simplest projects (e.g., pavement, buses)

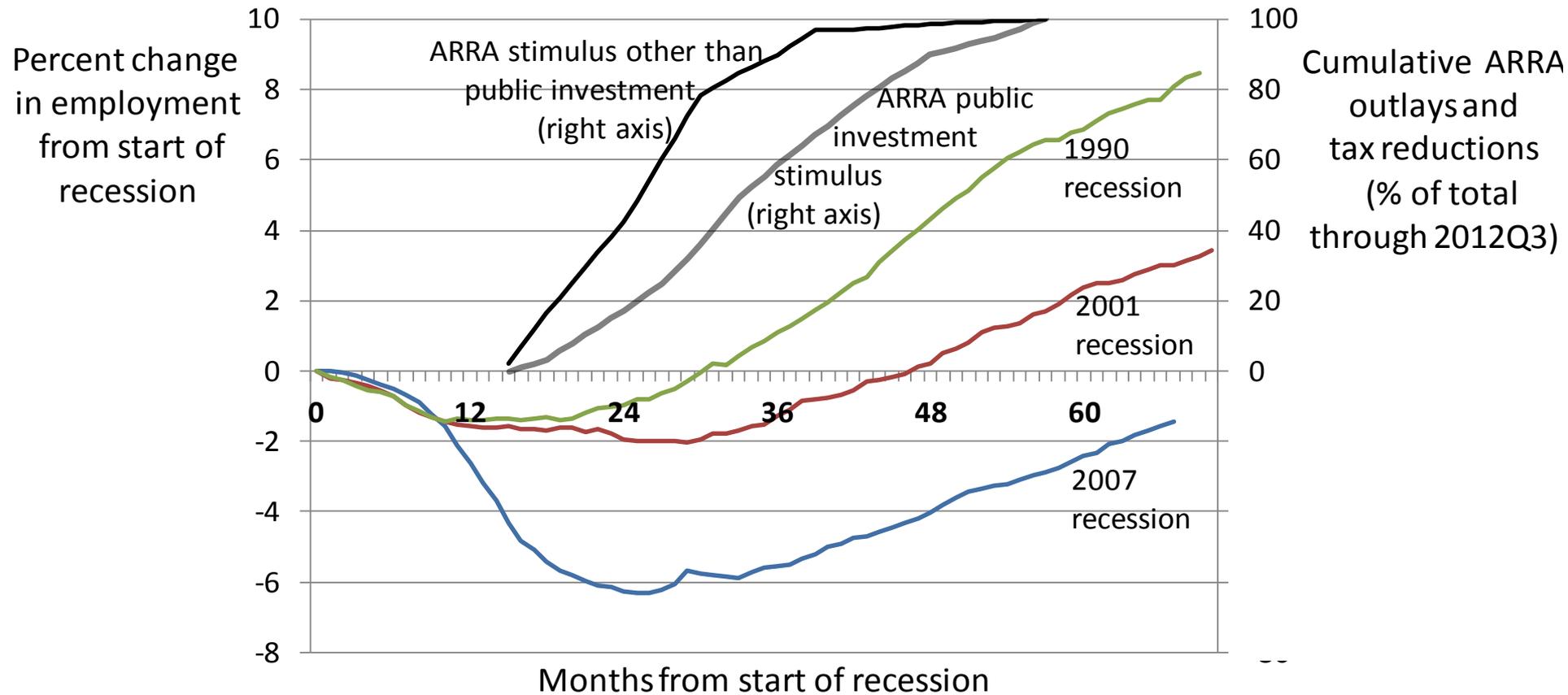
Timeliness: 2/3 of ARRA public investment funds were spent within 2 years of enactment



Timeliness: Recovery time after recessions has been lengthening



Timeliness: Investment stimulus spending at the ARRA rate is timely if recovery is lengthy



Conclusions (continued)

Design of a transportation stimulus program

- *Transportation share* of overall program: Limited by federal, state, local agencies' administrative capacities, industry capacity, available worthwhile projects
- *Allocation* within the transportation program: Following established formulas and procedures in ARRA helped speed enactment and spending
- *Administrative rules*: ARRA rules on jobs reporting, distressed areas priority, MOE were of uncertain value

Recommendations

Four areas of focus:

1. Expand transportation agency and construction industry capacity to absorb stimulus spending
2. Rationalize design of future transportation stimulus spending programs
3. Measure effect of federal aid program changes on recipient actions and program benefits
4. Define a method for balancing the recovery and reinvestment goals of transportation stimulus spending

Recommendations (continued)

1. Expand transportation agency and construction industry capacity to absorb stimulus spending
- Two objectives: (1) Stabilize transportation spending over the business cycle; (2) Manage any future temporary federal assistance efficiently
 - Actions to consider :
 - Provide stability in established federal funding programs
 - Increase project backlog
 - Carry balances in trust funds
 - Establish federal competitive assistance program charged with accelerating grants in recessions
 - Would benefit the economy and the transportation system

Recommendations (continued)

2. Rationalize design of future transportation stimulus spending programs
 - Advance rulemaking: Congress should authorize USDOT to publish rules now that would be applicable in any future stimulus program
 - Revise Maintenance of Effort (MOE) rules, data reporting, deadline rules in ARRA after evaluation of their effects and effectiveness

Recommendations (continued)

3. Measure the effect of federal-aid program changes on recipient actions and program benefits

USDOT should conduct research on how changes in the level of federal aid and in rules of aid programs affect recipients' spending decisions

4. Define a method for balancing the recovery and reinvestment goals of transportation stimulus spending

USDOT should define a method for evaluating the combined transportation and stimulus benefits of projects in a unified framework