

ECONOMIC IMPACT OF PUBLIC TRANSPORTATION INVESTMENT

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Economic Impact Issues

Why Measure Economic Impacts?

Types of Economic Impact

Short-term Spending Impact

Long Term Cost Savings & Productivity Impact

Interpreting Future Numbers

Conclusions

Why Measure Economic Impact?

1. Flow of Money in the Economy (*Where does it go?*)
2. Breadth of Impact (*Businesses & Households*)
3. Economic Stimulus Effect
4. Economic Competitiveness Effect
5. Consistency with Public Policy
6. Making Better Decisions

Types of Economic Impact

- **Short-Term Spending Impacts**
 - Capital Investment Impacts
 - Operations Impacts
- **Long-Term Economic Productivity Impacts**
 - Travel Time/Cost Improvement Impacts
 - Job and Market Access Improvement Impacts
- **Non-Money Impacts** (Environment)

Short-Term Impact: Spending Flows

- **29% Capital Purchases**
 - Purchase: Vehicles & Equipment
 - Construction: Right-of-Way & Buildings
- **71% Operations**
 - Drivers & Mechanics
 - Dispatchers, Engineers, Management
 - Fuel & Parts

Indirect Effect

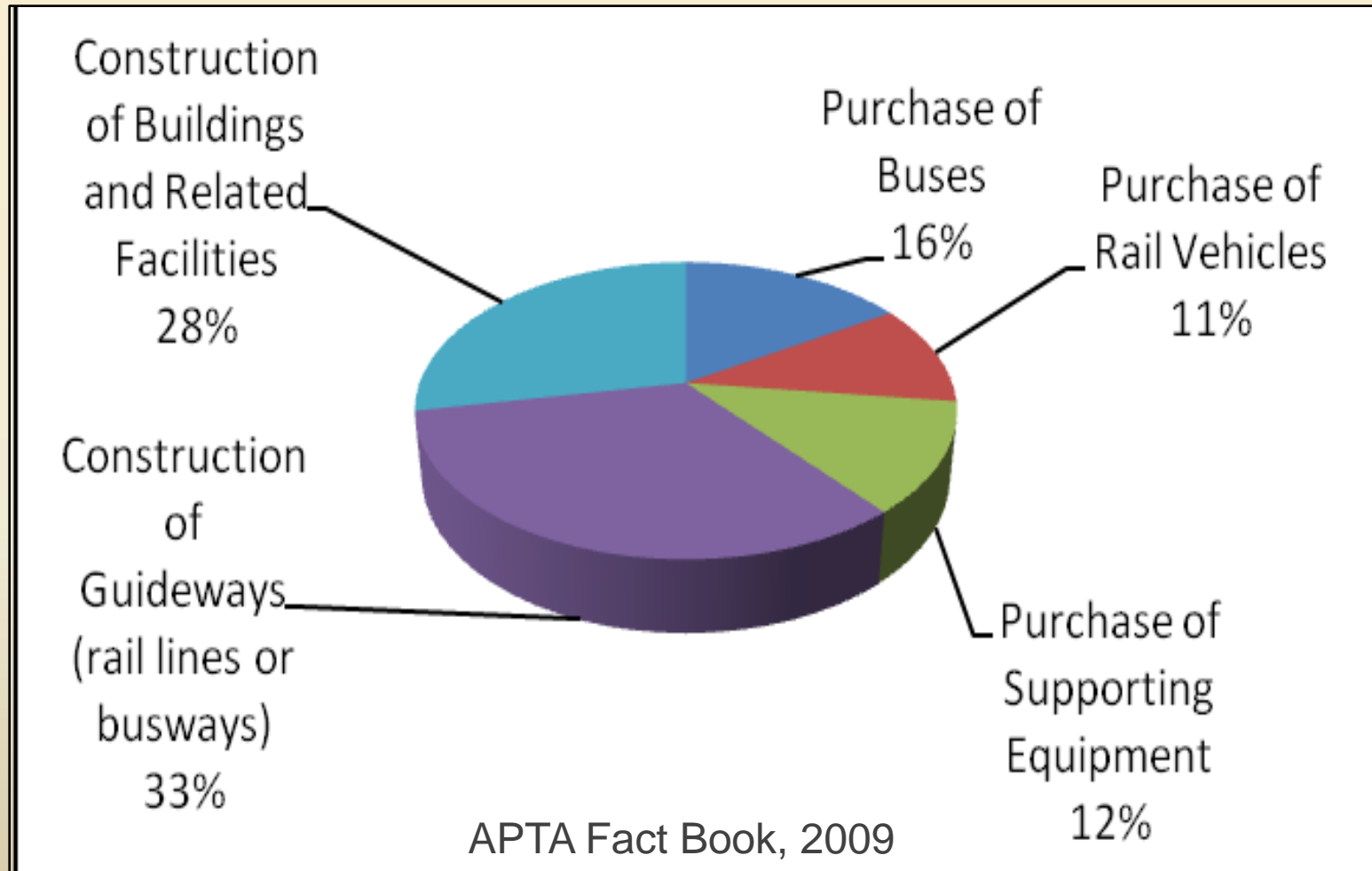
Supplies
Materials
Components

Induced Effect

Worker Spending

Key issue is the portion of spending going to businesses in the USA

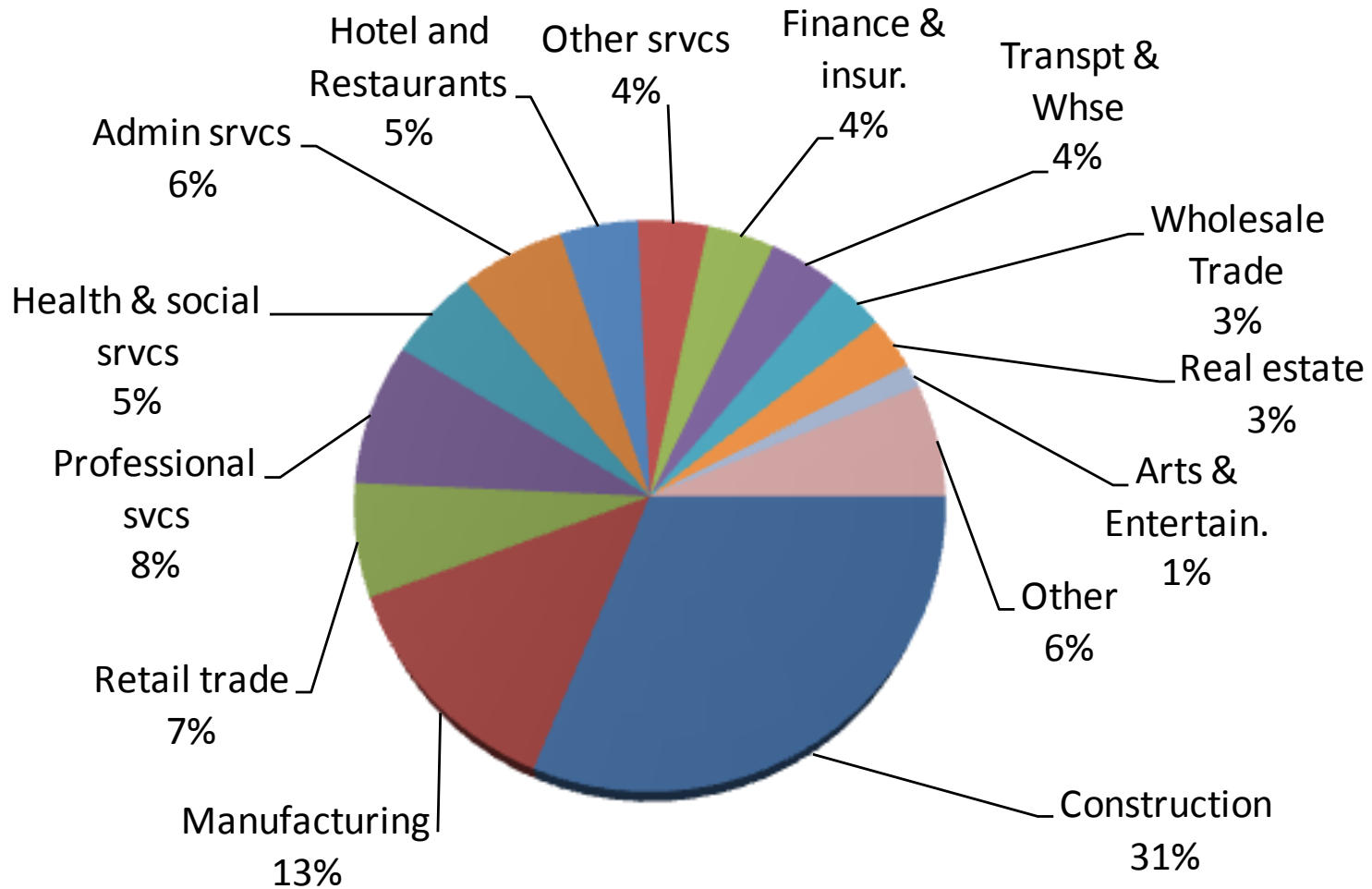
Capital Investment in Public Transportation in the US



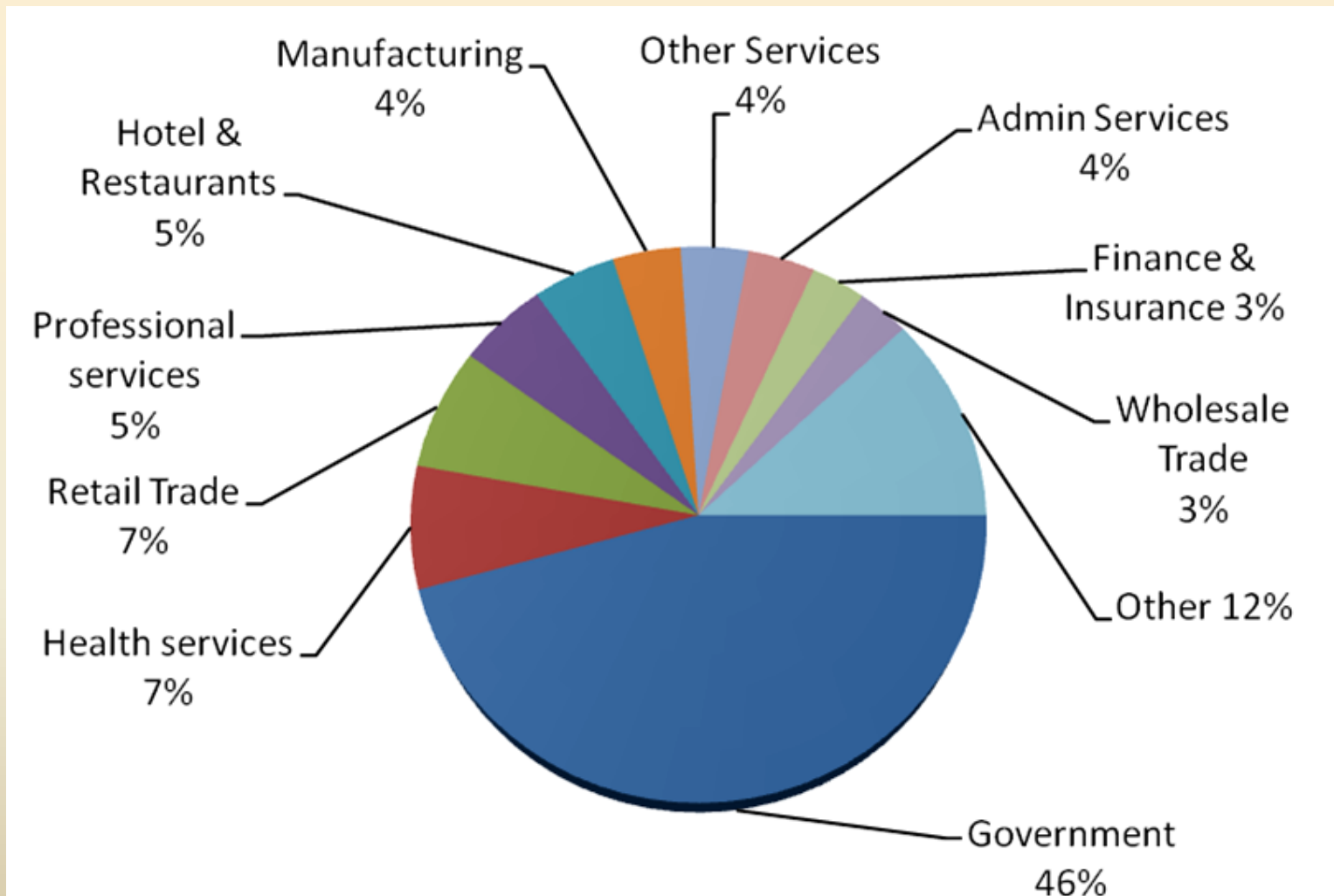
Economic Impact of National Investment in Public Transportation

Economic Impact	Per \$ Billion of Capital Spending	Per \$ Billion of Operations Spending	Per \$ Billion of Average Spending^B
Jobs (Employment, thousands)	23.8	41.1	36.1
Output (Sales, \$ billions)	\$ 3.0	\$ 3.8	\$ 3.6
GDP (Value Added, \$ billions)	\$ 1.5	\$ 2.0	\$ 1.8
Labor Income (\$ billions)	\$ 1.1	\$ 1.8	\$ 1.6
Tax Revenue (\$ millions)	\$ 350	\$ 530	\$ 490

Capital Investment: Job Impact



Operations Spending: Job Impact



Long-Term Impact: Cost Savings & Productivity

- Household cost savings
- Business delivery savings from reduced congestion
- Worker productivity due to more reliable arrivals
- Market access enlarged:
 - Broader labor market for business
 - Broader job options for workers
- Business cluster or agglomeration economies:
 - clustering of complementary activities, enabled by public transportation services and terminal facilities

Calculation Process

1. **Transit ridership increase** from service expansion
2. **Cost** per new rider
3. **Auto use reduction** from transit increase
4. **Passenger cost savings** for those switching to transit
5. **Auto & truck cost savings** from reduced congestion
6. **Business productivity** from greater labor force access and worker reliability



Overall Economic Impact: jobs, income, tax revenue

Long-Term Scenario (invest \$13b/yr for 10 yrs)

Impact per Billion \$

Form of Impact	Magnitude by Year 2020*
Households: Disposable Income	\$ 1.15 billion/yr.
<ul style="list-style-type: none"> from cost savings to public transit passengers from savings in auto user operating costs from savings in auto ownership costs 	
Business: Productivity	\$ 0.65 billion/yr.
<ul style="list-style-type: none"> from labor market access enhancement from auto/truck operating cost reduction 	
Total Value Added (Equivalent)	\$ 1.80 billion/yr.
Estimated Tax Revenue Impact (fed, state, local)	\$ 0.26 billion/yr.
Equivalent Wage Income Benefit	\$ 1.42 billion/yr.
Equivalent Job Benefit	30,800

Total Impact per \$1 Billion Invested *(year 10)*



Present value basis (5% discount rate, 30 years)
→ Income impact is 4 to 1

Interpreting Numbers

- Long-term economic impact builds up over time
(Less in early years, more in later years)
- Further economic impacts may be enabled in future
(reduced auto ownership if quality transit is sustained)
- Total benefit is much more than impact on economy
(add personal time savings + environmental benefit)
- Job creation rate (per \$ spent) changes over time
(due to inflation over time)

Conclusions

Recognize both short-term spending impact and long-term cost / productivity impact.

Type and quality of jobs is also important.

Economic impact can be enlarged by increasing efficiency and locally-produced materials.

Consider job and the economy as part of a broader set of cost & benefit considerations.