U.S. Passenger and Transit Rail Equipment Manufacture: Final Data

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This study in wider context of rail jobs

**Capital side:**
Jobs in manufacturing, construction, and project management

- Rail car and locomotive builders
- Component parts manufacturers
- Infrastructure equipment manufacturers
- Infrastructure construction firms
- Project management, finance and leasing firms

EDRG estimate: 24,000 jobs per $US billion of capital investment

**Operating side:**
Jobs in operating public transit systems and maintaining vehicles and infrastructure

- Passenger and transit rail agencies
- Rail operating firms
- Maintenance and rebuild firms

EDRG estimate: 41,000 jobs per $US billion of operating investment

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U.S. HSR compared to other countries

Miles of track enabled for high-speed trains, 2008 and projected for 2025

1,737 rail vehicles able to operate at least at 155 miles per hour (2008)
U.S. market

- Passenger coaches: $273 M (16%)
- LRT/ streetcars: $116 M (7%)
- Regional multiple units: $500 M (30%)
- Metro: $798 M (47%)

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Builders that serve U.S. market

- Kawasaki: 23%
- Bombardier: 28%
- Alstom: 20%
- Hyundai-Rotem: 9%
- Kinkisharyo: 7%
- Siemens: 7%
- All Other Builders: 6%

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How many firms?

- **Tier 1**
  - 15 railcar firms
  - 3 locomotive firms
  - 2 firms that do both

- **Tier 2**
  - 159 firms

- **Tier 3**
  - Many more firms
### Tier 1 and Tier 2

#### Propulsion systems
- Truck
  - Suspension
  - Wheel set
  - Brake system
- Engine
- Fuel system
- Traction motors
- Electric generator

#### Passenger & transit railcar OEMs
- Railcar firms
- Locomotive firms

#### Electronic systems
- Auxiliary power units
- Electric collector
- Security system
- Driving control systems
- Communication system

#### Body & Interior
- Hatch covers
- Bathroom
- Door system
- Coupler
- Horn, bells
- Windows
- Body
- Seating
- HVAC

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Rail vehicles and components

- 249 U.S. manufacturing locations in 35 states
- Highest concentrations:
  - NY: 32
  - IL: 23
  - PA: 26
  - CA: 22
  - OH: 13

Railcar or locomotive OEM manufacturing/assembly (35 locations)

Tier 2 manufacturing (212 locations)
10,000 to 14,000 jobs

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CGGC estimate:
- 4,000 current jobs
- 6,000-10,000 current jobs

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What can federal policies do?

1. Increase investments
2. Support domestic manufacturing
3. Improve local content accountability
1. Increase investments

- Over $248 billion in new fixed guide-way projects
- At current rate of federal spending would take 77 years

Data source: Reconnecting America
2. Support domestic manufacturing

- Support for R&D and coordinated efforts to expand knowledge base
- Support for retooling (loan funds, conversion grants)
3. Improve local content accountability

- Improve accountability
- Heighten transparency
- Offer incentives to increase domestic content
Thank you for your attention!

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