

HSR Lessons Learned

WTS discussion

High Speed Rail Summit for the East Coast

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Passenger Rail Lessons (1)

- Passenger rail is expensive, HSR is **really** expensive. Bring money or don't come.
- Demographics have to be right: population density, road/air congestion, high energy prices
- Distance “sweet spot” is critical
- Passenger rail benefits are both public (congestion, pollution, safety, CO2) and private (revenues, property)
- Public role (and funding) **always** required: private role is possible, maybe desirable, but optional



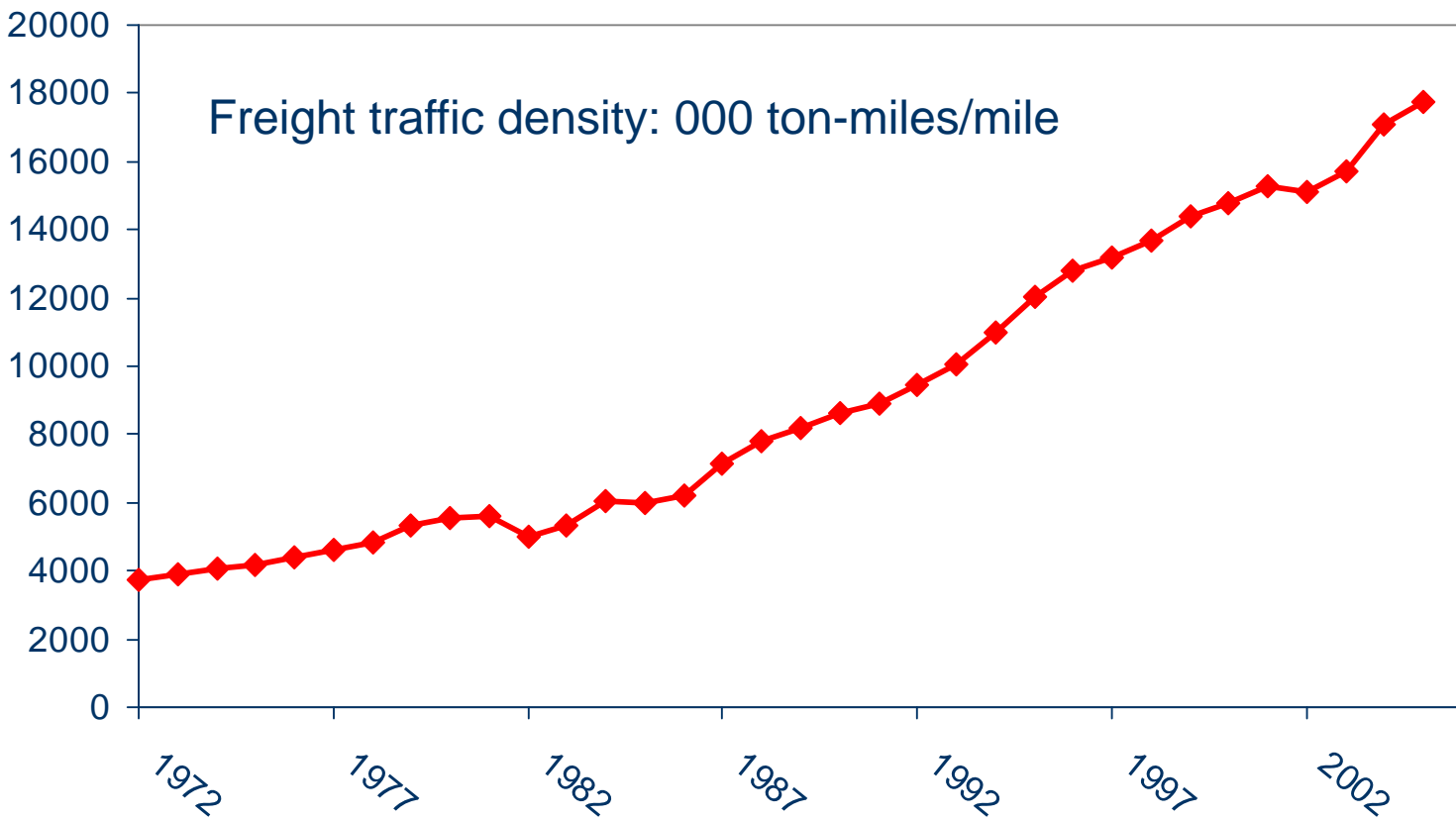
Rail Passenger Profile (2005)

	Trip Lengths (Km)				
	% Pass.	% Pass-Km	Shortest	Average	Longest
Comm/SH	56.8	18.9	15.2	27.0	44.2
Conv/LH	40.8	72.4	19.9	144.5	1051.1
HSR	2.3	8.7	69.8	301.3	456.8

22 railways representing ~ 90% of world passenger traffic
(EU, Russia, China, India, Japan, US, Canada, Korea)

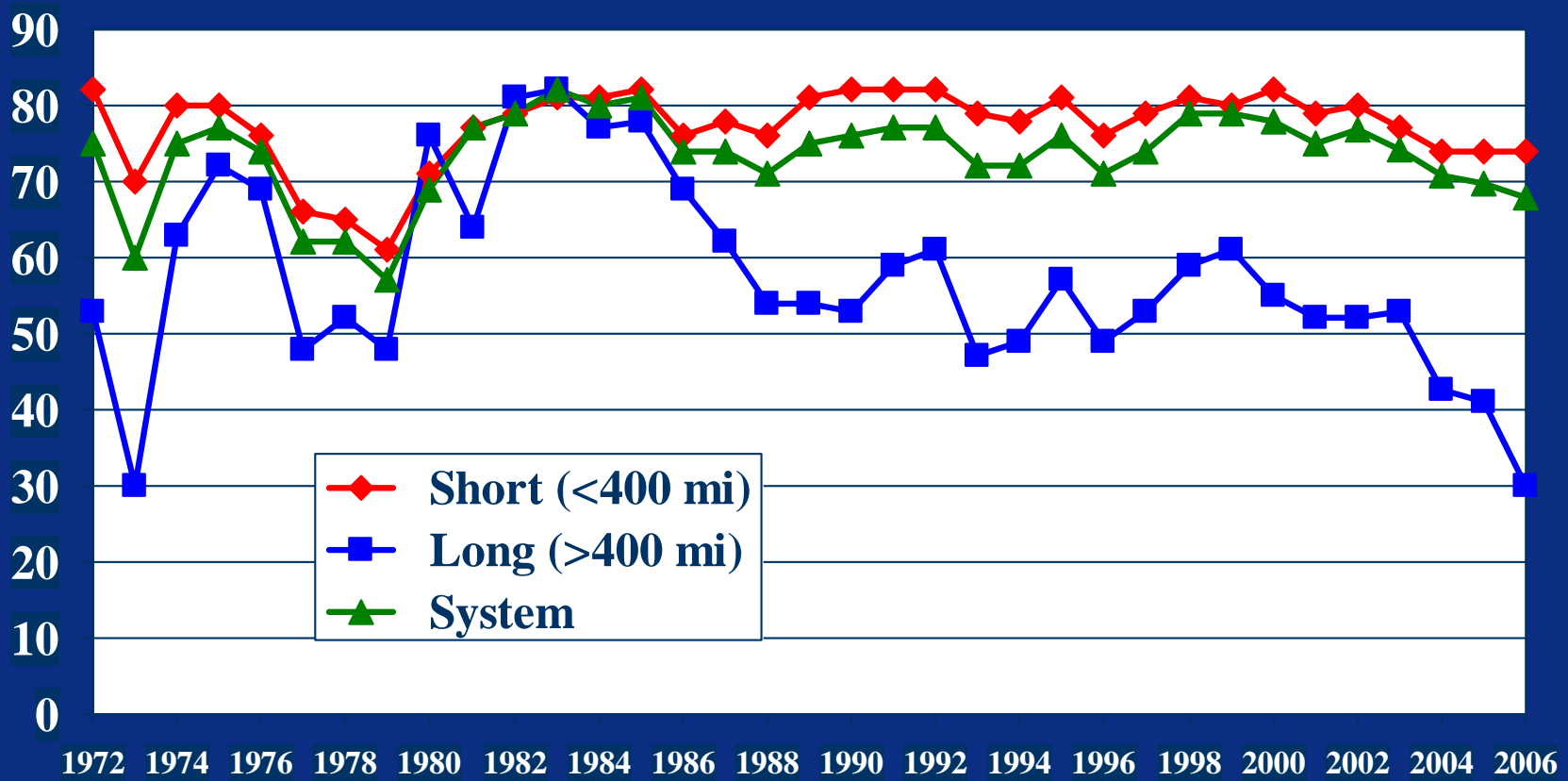


Class I Rail Freight Traffic Density





Amtrak on-time performance (%)



Short haul on time: 10 min. Long Haul: 30 min



Passenger Rail Lessons (2)

- Conventional rail passenger services can coexist with freight on same ROW, but:
 - ◆ Bring money (more and better tracks, signaling)
 - ◆ Acknowledge safety risks and accept liability
 - ◆ Coexistence will get harder over time (aim exclusive)
 - ◆ Most world experience is with passenger priority systems (unlike US – NEC is a limited exception)
 - ◆ Amtrak access exclusivity is an issue
 - ◆ Analytical tools and dispute mediation needed
- **HSR** does **NOT** coexist with freight easily, if at all



Passenger Rail Lessons (3)

- The existing policy and financing framework is not workable
- Federal role ineffective in supporting suburban or intercity rail passengers
 - ◆ Not modally neutral: FTA, FWHA, FAA promotional vs. FRA safety
 - ◆ Funding inadequate overall, and for each mode, inflexible: Amtrak faces impossible challenge
 - ◆ Only *ad hoc* approaches for Federal investment in private infrastructure (Alameda, CREATE)
- Federal/Regional/State/ Local roles not clear or established, and funding/expertise levels vary widely
- Amtrak/Private Sector roles not established
- Walk before we run



Passenger Rail Lessons (4). If We **Really** Wanted Rail Passenger Services (Conventional and HSR), We Would:

- Raise gas and diesel taxes to EU and Japanese levels (financing, congestion, safety, environment and security)
- Implement road and airport congestion pricing
- Develop **transport** funding, not modal silos
- Create FRA role for promoting and financing short and long haul service similar to FTA role in urban transport
- Establish new policy for public investment (or tax incentives) in private ROW: define benefits, share costs
- Per Amtrak's *Strategic Reform Initiatives*, Amtrak focus on LH and NEC, shift toward contract operator of SH while states take the planning initiatives

RAIL PASSENGER TRAFFIC IN 2005

Country	Passengers (000)				Passenger-Km (000,000)				Avg trip length (km)			
	Commute	Conv/LH	HSR	Total	Commute	Conv/LH	HSR	Total	Comm.	Conv/LH	HSR	Total
Austria	162,800	28,800	0	191,600	4,948	3,522	0	8,470	30.4	122.3		44.2
Belgium	110,372	67,661	8,573	186,606	4,344	3,783	982	9,109	39.4	55.9	114.5	48.8
Czech Rep	65,120	113,039	54	178,213	1,257	5,368	6	6,631	19.3	47.5	111.1	37.2
Finland	0	62,163	1,330	63,493	0	3,167	311	3,478		50.9	233.8	54.8
France	630,739	238,432	93,550	962,721	13,572	19,856	42,730	76,159	21.5	83.3	456.8	79.1
Germany	1,060,874	626,024	76,776	1,763,674	18,429	29,906	24,134	72,469	17.4	47.8	314.3	41.1
Italy	280,448	214,414	21,906	516,768	9,896	27,698	8,550	46,144	35.3	129.2	390.3	89.3
Netherlands	0	316,074	5,070	321,144	0	14,043	687	14,730		44.4	135.5	45.9
Poland	114,010	104,007	0	218,017	4,453	12,289	0	16,742	39.1	118.2		76.8
Portugal	76,415	52,339	1,854	130,608	1,161	1,761	490	3,412	15.2	33.6	264.3	26.1
Spain	0	498,267	7,176	505,443	0	17,483	2,325	19,808		35.1	324.0	39.2
Sweden	0	27,800	7,100	34,900	0	2,870	2,330	5,200		103.2	328.2	149.0
UK (ATOCS)	1,057,000	93,000	0	1,150,000	31,200	15,000		46,200	29.5	161.3		39.9
UK (Eurostar)	0	1,150	6,300	7,450	0	360	440	800			69.8	107.4
Russia	1,204,561	134,162	0	1,352,800	53,276	118,941	0	172,217	44.2	886.5		32.6
China	0	1,106,510	0	1,106,510	0	583,320	0	583,320		527.2		527.2
India	3,178,000	2,199,937	0	5,377,937	103,759	471,943	0	575,702	32.6	214.5		107.0
Japan	5,353,627	3,028,851	301,382	8,683,862	107,929	60,124	77,903	245,957	20.2	19.9	258.5	28.3
Korea	12,636	905,989	32,370	950,995	468	21,520	8,937	31,004	37.0	23.8	276.1	32.6
Canada (VIA)	0	4,097	0	4,097	0	1,428	0	1,428		348.5		348.5
Amtrak Acela			2,668				759				284.5	
Amtrak (NEC-Acela)		6,763				1,625				240.3		
Amtrak Short Haul		11,144				2,316				207.8		
Amtrak Long Haul		3,731				3,922				1051.1		
Amtrak Total	0	21,639	2,668	24,307	0	7,863	759	8,622		363.4		345.4
US Commuter Rail	414,061			414,061	15,651			15,651	37.8			
Total	13,720,663	9,844,355	566,109	24,145,206	370,343	1,422,245	170,584	1,963,252	27.0	144.5	301.3	32.6



Is Acela HSR?

