

Anticipated time savings achieved by ARC



A Report by
Regional Plan Association
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The benefits of the Access to the Region's Core project – a new trans-Hudson passenger tunnel that will connect New York and New Jersey – are far-reaching and well defined. ARC will significantly cut train commute times to Manhattan, increase the reliability of NJ TRANSIT trains, reduce traffic and greenhouse gas emissions, create jobs, drive economic growth in the right places, and boost home values.

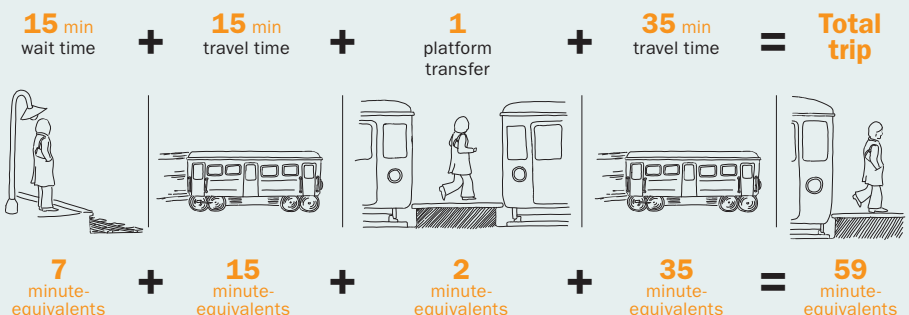
This report estimates the future savings in commuting times to and from Midtown that could be achieved with ARC. These estimates are based on Spring 2010 train schedules, trends in NJ TRANSIT operations, and the project's detailed FEIS. Time savings vary by line and by station. Some lines will gain a one-seat ride to Midtown, while others will see significantly increased service frequency during peak hours. Future operations decisions by NJ TRANSIT could reallocate service in between stations and even between lines, based on demand, future development, and other factors.

By reducing commuting times, ARC will double the number of households in New Jersey within 50 minutes of Manhattan, where salaries are, on average, 60% higher than in New Jersey. About 275,000 New Jerseyans travel every day across the Hudson River. They bring home a disproportionate share of income, pay large income and property taxes, and create more jobs back home. Unfortunately, all the trans-Hudson crossings – NJ TRANSIT, PATH and the vehicular tunnels and bridges – are at or near capacity. Building ARC will provide capacity for another 70,000 New Jerseyans to reach Manhattan. New York City is going to continue adding jobs: it has the demand, the zoning, the capital, and is better connected to the global economy than anywhere else in the US. New Jersey residents must be able to get to them.

	PV	M/B/PJ	Mo-Bo to MSU	Mo-Bo past MSU	M&E to Dover	M&E past Dover	RV	NEC	NJCL to Long Branch	NJCL past Long Branch
Improvement in scheduled trip times	12	12	16	22	16	22	22	16	16	22
Faster travel time crossing the Hudson (less congestion, fewer trains stopping at Secaucus)			12	12	12	12	12	12	12	12
No more transfer at Secaucus (walk time, wait time)	8	8								
No more transfer at Newark (walk time, wait time)						6				
No more transfer from diesel line (walk time, wait time)				6		6				6
Crowding relief at PSNY/34th St terminal (over no-build condition)	4	4	4	4	4	4	4	4	4	4
Improvement in transfer penalty	10.6	10.6	0	4	0	2	10.6	0	0	4
Improvement in frequency penalty	varies by station (see next page)									
Total typical round-trip improvement in trip times	22.6	22.6	16	26	16	26	32.6	16	16	26

What is a minute-equivalent?

In order to compare the different trips that NJ TRANSIT commuters make every day, the value of certain commute factors, such as train transfers and service frequency, was translated into a common currency, called minute-equivalents. For instance, the value of avoiding a train transfer is worth 5.3 minute-equivalents; unless the transfer is simply across the platform, in which case it is 2 minute-equivalents. A similar minute-equivalent estimate was included to reflect the frequency of service in the morning two-hour peak period. If the average wait time was under 15 minutes, the penalty was half the wait time; if the average wait time was between 15 and 30 minutes, the penalty was 7.5 minutes plus one-quarter of the wait time over 15 minutes; if the average wait time was over 30 minutes, the penalty was 11.25 minutes plus one-eighth of the wait time over 30 minutes. This methodology was developed by NJ TRANSIT and has been used in several of their past modeling exercises.



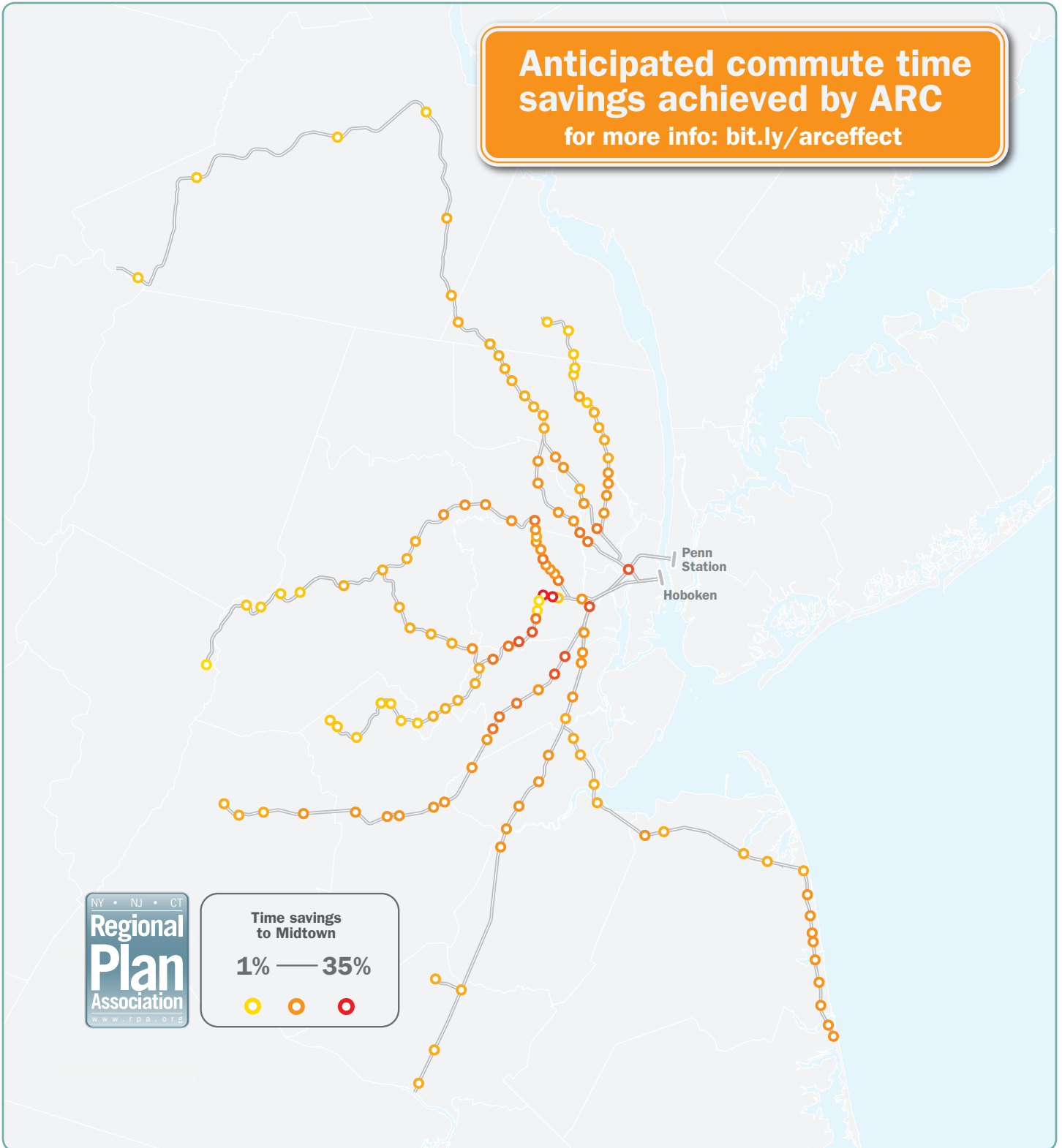
	Weekday boardings	Trip times to Midtown (round trip)		Reduction in trip times to Midtown (round trip)	
		Current	Post ARC	Minutes*	Percentage
Terminal stations					
Hoboken Terminal	17,061	48.0	48.0	0.0	0%
Newark Penn Station	27,419	57.5	40.7	16.8	29%
Secaucus Junction	16,750	33.5	24.5	9.0	27%
Pascack Valley					
Anderson Street-Hackensack	347	112.1	92.5	19.6	17%
Emerson	206	142.5	125.4	17.1	12%
Essex Street-Hackensack	322	106.1	89.0	17.1	16%
Hillsdale	359	151.7	134.6	17.1	11%
Montvale	167	166.1	151.0	15.1	9%
North Hackensack	435	115.4	97.8	17.6	15%
Oradell	311	131.8	116.7	15.1	11%
Park Ridge	174	161.1	146.0	15.1	9%
River Edge	501	123.8	108.7	15.1	12%
Teterboro-Williams Ave	97	101.3	84.2	17.1	17%
Westwood	378	144.4	129.3	15.1	10%
Wood-Ridge	290	92.1	75.0	17.1	19%
Main-Bergen					
Allendale	441	150.9	128.3	22.6	15%
Broadway	292	116.6	96.5	20.1	17%
Clifton	747	119.6	97.0	22.6	19%
Delawanna	554	105.6	83.0	22.6	21%
Garfield	253	107.6	90.0	17.6	16%
Glen Rock-Main/Boro Hall	997	123.4	105.8	17.6	14%
Hawthorne	487	141.6	119.0	22.6	16%
Ho-Ho-Kus	444	141.0	122.6	18.4	13%
Lyndhurst	766	98.6	76.0	22.6	23%
Mahwah	247	163.1	140.5	22.6	14%
Passaic	568	112.1	89.5	22.6	20%
Paterson	663	132.6	110.0	22.6	17%
Plauderville	374	110.1	95.0	15.1	14%
Radburn	1,423	113.0	91.8	21.2	19%
Ramsey	723	149.1	126.5	22.6	15%
Ridgewood	1,566	133.0	113.4	19.6	15%
Rte 17 Ramsey	747	144.6	126.2	18.4	13%
Rutherford	1,018	91.1	71.0	20.1	22%
Suffern	934	155.3	132.7	22.6	15%
Waldwick	506	147.5	129.1	18.4	12%
Montclair-Boonton					
Bay Street-Montclair	978	105.0	86.5	18.5	18%
Bloomfield	990	93.0	74.5	18.5	20%
Boonton	87	208.0	177.0	31.0	15%
Glen Ridge	1,082	99.0	80.5	18.5	19%
Lincoln Park	147	186.0	155.0	31.0	17%
Little Falls	203	166.0	135.0	31.0	19%
Montclair Heights	320	132.3	110.8	21.5	16%
Montclair St Univ	597	139.0	108.1	30.9	22%
Mountain Avenue	131	128.3	109.8	18.5	14%
Mountain Lakes	45	214.0	183.0	31.0	14%
Mountain View-Wayne	237	178.0	147.0	31.0	17%
Towaco	128	194.0	163.0	31.0	16%
Upper Montclair	545	123.7	102.2	21.5	17%

	Weekday boardings	Trip times to Midtown (round trip)		Reduction in trip times to Midtown (round trip)	
		Current	Post ARC	Minutes*	Percentage
Walnut Street	1,021	112.3	88.8	23.5	21%
Watchung Avenue	745	118.3	99.8	18.5	16%
Watsessing	240	81.7	63.2	18.5	23%
Wayne Route 23 Transit Center	60	172.0	141.0	31.0	18%
Morris & Essex					
Basking Ridge	119	171.0	155.0	16.0	9%
Berkeley Heights	511	139.0	123.0	16.0	12%
Bernardsville	238	178.0	162.0	16.0	9%
Brick Church	1,542	77.0	53.5	23.5	31%
Chatham	1,519	119.1	99.7	19.4	16%
Convent Station	1,345	137.1	117.7	19.4	14%
East Orange	308	119.6	113.0	6.6	6%
Far Hills	199	191.0	175.0	16.0	8%
Gillette	150	146.0	130.0	16.0	11%
Gladstone	210	213.0	197.0	16.0	8%
Highland Avenue	228	128.6	124.5	4.1	3%
Lyons	468	164.0	148.0	16.0	10%
Madison	1,538	127.9	108.5	19.4	15%
Maplewood	2,922	95.5	69.0	26.5	28%
Millburn	1,618	99.0	73.0	26.0	26%
Millington	188	158.0	142.0	16.0	10%
Morris Plains	776	153.5	134.1	19.4	13%
Morristown	2,057	145.1	125.7	19.4	13%
Mountain Station	307	152.6	148.5	4.1	3%
Murray Hill	564	130.0	114.0	16.0	12%
New Providence	546	121.0	105.0	16.0	13%
Orange	1,135	105.0	69.0	36.0	34%
Peapack	46	199.0	183.0	16.0	8%
Short Hills	1,432	101.7	78.2	23.5	23%
South Orange	3,364	86.3	65.8	20.5	24%
Stirling	88	152.0	136.0	16.0	11%
Summit	3,642	102.8	79.3	23.5	23%
Morris & Essex and Montclair-Boonton					
Denville	601	173.5	150.0	23.5	14%
Dover	1,474	187.1	164.9	22.2	12%
Hackettstown	150	292.0	281.0	11.0	4%
Lake Hopatcong	130	238.5	215.0	23.5	10%
Mount Olive	45	265.7	244.7	21.0	8%
Mt Arlington	82	230.5	207.0	23.5	10%
Netcong	226	255.7	234.7	21.0	8%
Newark Broad Street	2,524	66.7	53.7	13.0	19%
Northeast Corridor					
Edison	3,255	114.7	95.3	19.3	17%
Elizabeth	4,153	86.5	70.5	16.0	18%
Hamilton	4,986	153.0	134.2	18.8	12%
Jersey Avenue	1,702	134.8	108.0	26.8	20%
Linden	2,265	102.2	86.2	16.0	16%
Metropark	7,372	94.8	75.5	19.3	20%
Metuchen	3,859	104.8	85.5	19.3	18%
New Brunswick	6,091	124.5	105.2	19.3	16%
Newark Airport	3,352	73.2	59.2	14.0	19%
North Elizabeth	510	80.8	64.8	16.0	20%

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Princeton	1,095	165.0	143.8	21.2	13%
Princeton Junction	7,205	138.2	119.4	18.8	14%
Rahway	3,195	111.5	95.5	16.0	14%
Trenton	5,529	166.2	147.4	18.8	11%
North Jersey Coast					
Aberdeen-Matawan	3,048	140.6	117.8	22.8	16%
Allenhurst	202	257.0	208.5	48.5	19%
Asbury Park	634	265.0	216.5	48.5	18%
Avenel	167	141.7	120.2	21.5	15%
Bay Head	264	311.0	262.5	48.5	16%
Belmar	298	277.0	228.5	48.5	18%
Bradley Beach	308	271.0	222.5	48.5	18%
Elberon	255	249.0	200.5	48.5	19%
Hazlet	1,065	149.5	126.7	22.8	15%
Little Silver	994	183.2	160.4	22.8	12%
Long Branch	1,369	195.8	172.9	22.8	12%
Manasquan	240	293.0	244.5	48.5	17%
Middletown	1,886	161.5	138.7	22.8	14%
Perth Amboy	1,139	142.3	124.3	18.0	13%
Point Pleasant	351	303.0	254.5	48.5	16%
Red Bank	1,607	174.6	151.8	22.8	13%
South Amboy	1,229	135.3	119.3	16.0	12%
Spring Lake	234	285.0	236.5	48.5	17%
Woodbridge	1,822	117.3	101.3	16.0	14%
Raritan Valley					
Annandale	125	239.6	204.5	35.1	15%
Bound Brook	748	173.7	139.1	34.6	20%
Bridgewater	417	186.6	156.5	30.1	16%
Cranford	1,189	130.4	106.8	23.6	18%
Dunellen	1,041	159.1	126.5	32.6	20%
Fanwood	917	152.6	120.0	32.6	21%
High Bridge	80	247.6	212.5	35.1	14%
Lebanon	25	231.6	196.5	35.1	15%
Netherwood	603	159.6	124.0	35.6	22%
North Branch	95	205.6	170.5	35.1	17%
Plainfield	1,044	160.9	128.3	32.6	20%
Raritan	731	197.8	166.6	31.2	16%
Roselle Park	901	124.1	86.5	37.6	30%
Somerville	711	183.2	152.1	31.2	17%
Union	1,230	117.1	81.5	35.6	30%
Westfield	2,321	136.8	104.2	32.6	24%
White House	109	219.6	184.5	35.1	16%

* Trip times are for round trips to Midtown based on morning peak service times. They are expressed in minute-equivalents, which account for commute factors such as the need to transfer trains and the average wait time in the morning peak (see first page for a full definition of minute-equivalents).

Anticipated commute time savings achieved by ARC
for more info: bit.ly/arceffect



4 Irving Place, 7th floor
New York, NY 10003
212.253.2727

Two Landmark Square, Suite 108
Stamford, CT 06901
203.356.0390

179 Nassau Street, 3rd floor
Princeton, NJ 08542
609.228.7080

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