



# **Merger Retrospective: Delta-Northwest and United-Continental**

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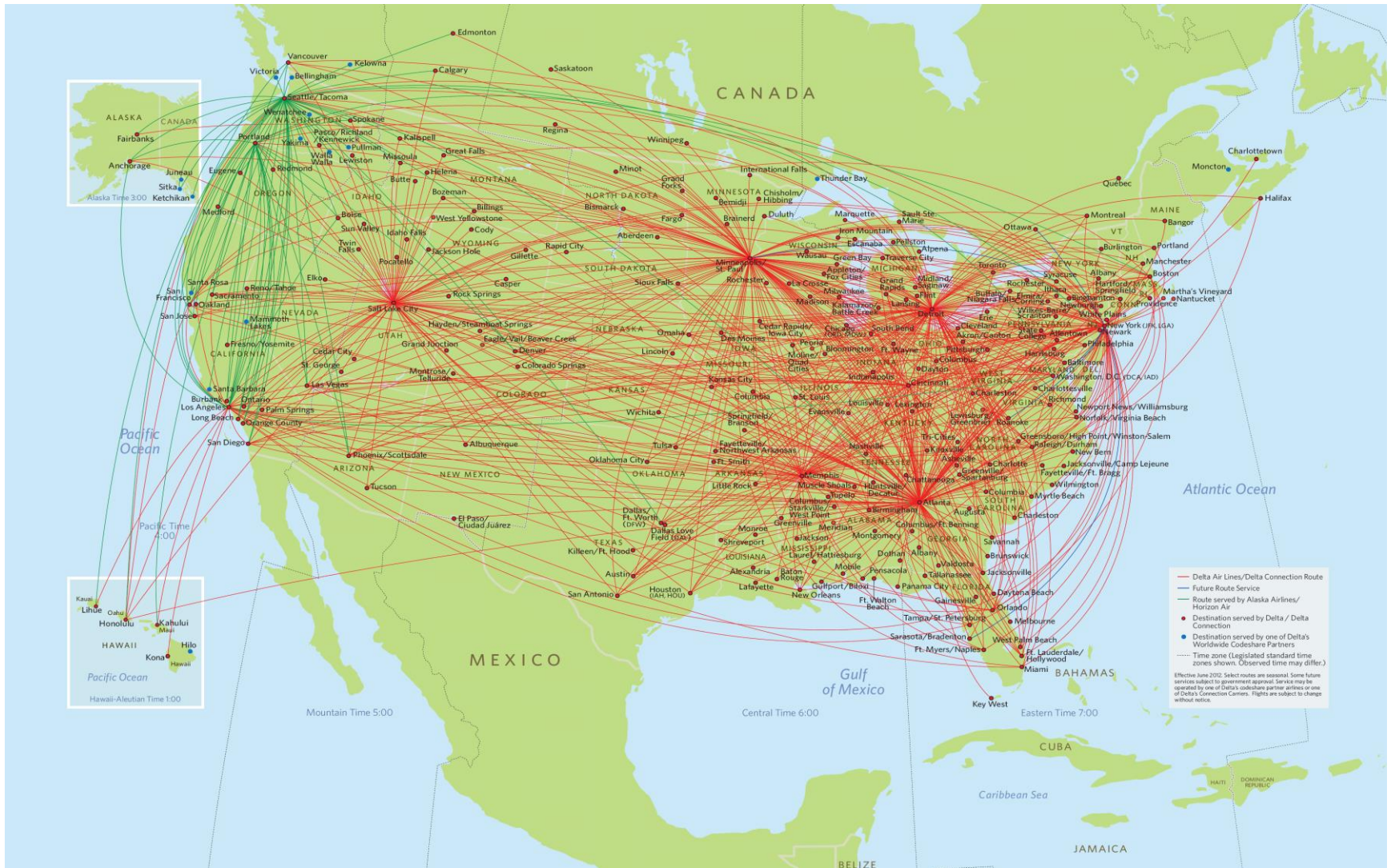
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# Methodology

- Israel et al. (2012) analyzes the effects of mergers by evaluating changes in quality-adjusted fares.
- Quality increases as the result of more convenient schedules and expanded networks.
- Relies on the DB1B database and OAG airline schedules.
- Does not account for unbundled fees.
- Retrospective: Focus has been on nominal fares, but analysis should account for real quality-adjusted fares and efficiencies.
- Retrospective: Has hub market power been affected?

# Delta-Northwest



# Delta-Northwest

The merger substantially expanded Delta's pre-merger network.

The merger was predicted to benefit the vast majority of consumers even if nominal fares would increase on some routes:

Routes with two non-stop competitors: consumer welfare was predicted to increase by 4.25 percent of revenues

Routes with three non-stop competitors: consumer welfare was predicted to increase by 12.31 percent of revenues

The predicted improvement in welfare was due to increased schedule convenience and an increase in the number of destinations served via non-stop service

# Delta-Northwest Net Consumer Welfare Results *(from Israel, Keating, Rubinfeld, and Willig(2012))*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Route	Type	Passengers (MM)	Revenues (\$ MM)	Change in Inconvenience* (hours)	Change in Destinations Served Non- stop*	Net Change in Consumer Welfare (\$ MM)	Ratio of Net Change in Consumer Welfare to Revenue
ATLDTW	3->2	0.23	\$35.80	-0.7	52.2	\$7.72	21.55%
ATLMEM	3->2	0.12	\$16.50	-0.6	19.3	\$2.84	17.18%
ATLMSP	3->2	0.22	\$38.00	-0.6	45.4	\$8.44	22.22%
CN2DTW	2->1	0.01	\$1.68	-0.6	45.8	\$0.12	6.89%
CN2MSP	2->1	0.05	\$15.30	-1.2	37.0	\$0.39	2.57%
DTWATL	3->2	0.23	\$35.30	-0.7	40.8	\$6.72	19.05%
DTWCN2	2->1	0.01	\$1.57	-0.9	58.3	\$0.13	8.53%
DTWNY3	2->1	0.44	\$73.20	-0.2	5.2	\$2.03	2.78%
DTWSLC	2->1	0.04	\$10.30	-1.0	42.6	\$0.90	8.67%
MEMATL	3->2	0.13	\$17.30	-0.8	41.1	\$3.91	22.56%
MSPATL	3->2	0.21	\$37.20	-0.7	42.8	\$6.86	18.44%
MSPCN2	2->1	0.05	\$15.80	-0.8	41.5	\$0.70	4.46%
MSPNY3	3->2	0.37	\$91.90	-0.6	5.6	\$4.30	4.68%
MSPSLC	2->1	0.05	\$15.30	-0.7	31.5	\$1.06	6.90%
NY3DTW	2->1	0.44	\$73.10	-0.2	17.2	\$4.11	5.63%
NY3MSP	3->2	0.37	\$92.60	-0.5	17.1	\$4.11	4.44%
SLCDTW	2->1	0.04	\$10.40	-1.0	22.1	\$0.24	2.31%
SLCMSP	2->1	0.05	\$15.50	-0.4	30.5	\$0.18	1.17%
2->1	2->1	1.18	\$232.00	-0.4	17.2	\$9.87	4.25%
3->2	3->2	1.89	\$365.00	-0.6	30.0	\$44.89	12.31%
All Routes		369.50	\$69,800.00			\$390.74	0.56%

## United and Continental Nonstop Overlaps City Pairs, 2009

No.	Route	Change in Nonstop Competitors	Total Passengers	Total Revenue	Airlines' Share of Passengers, Full-Year 2009														
					UA Share	CO Share	Airline1 Share	Airline2 Share	Airline3 Share	Airline4 Share	Airline5 Share	Airline6 Share							
1	CL2-DC3	Cleveland area - Washington D.C area	4-3	282,612	\$22,048,780	7.6%	30.7%	WN*	53.8%	US*	6.5%	DL	1.3%	-	-	-	-	-	-
2	DC3-HO2	Washington D.C area - Houston area	3-2	712,569	\$155,006,975	6.4%	55.4%	WN*	22.8%	US	5.7%	DL	3.6%	FL	3.4%	AA	2.5%	-	-
3	HO2-LA3	Houston area - Los Angeles area	3-2	631,775	\$134,366,516	1.6%	51.2%	WN*	34.3%	US	7.5%	AA	3.1%	F9	1.1%	DL	1.0%	-	-
4	HO2-SF2	Houston area - San Francisco area	3-2	391,680	\$91,563,990	5.9%	50.8%	WN*	33.7%	US	5.5%	DL	1.8%	AA	1.2%	F9	1.1%	-	-
5	CL2-DEN	Cleveland area - Denver Intl	3-2	174,710	\$30,539,556	21.0%	29.0%	F9*	36.1%	WN	5.8%	DL	4.0%	AA	1.6%	US	1.4%	FL	1.1%
6	DC3-NY3	Washington D.C area - New York area	7-6	1,118,191	\$144,762,232	12.2%	6.6%	DL*	35.8%	US*	30.0%	B6*	8.9%	AA*	4.9%	WN*	1.7%	-	-
7	LA3-OGG	Los Angeles area - Kahului	4-3	319,080	\$104,333,857	51.7%	0.7%	AA*	23.0%	DL*	13.8%	HA	7.0%	AS	2.9%	-	-	-	-
8	CH2-CL2	Chicago area - Cleveland area	4-3	472,262	\$42,330,648	25.6%	15.3%	WN*	46.2%	AA*	12.0%	-	-	-	-	-	-	-	-
9	CH2-HO2	Chicago area - Houston area	4-3	725,449	\$122,140,034	10.6%	43.7%	WN*	31.7%	AA*	11.4%	DL	1.7%	-	-	-	-	-	-
10	CH2-NY3	Chicago area - New York area	6-5	2,647,813	\$432,582,385	27.2%	13.8%	AA*	35.7%	DL*	11.6%	B6*	6.2%	WN*	4.1%	-	-	-	-
11	DEN-HO2	Denver Intl. - Houston area	4-3	609,086	\$90,123,836	15.6%	43.4%	WN*	23.0%	F9*	16.5%	-	-	-	-	-	-	-	-
12	DEN-NY3	Denver Intl. - New York area	5-4	859,720	\$176,777,875	39.9%	22.2%	F9*	13.3%	B6*	11.4%	DL*	7.8%	AA	2.8%	US	1.6%	-	-
13	HNL-LA3	Honolulu Intl. - Los Angeles area	5-4	949,800	\$250,018,006	23.7%	5.2%	DL*	24.2%	HA*	22.5%	AA*	21.9%	AS	2.3%	-	-	-	-
14	LA3-NY3	Los Angeles area - New York area	6-5	3,064,180	\$804,908,952	8.6%	16.1%	AA*	21.8%	B6*	18.2%	DL*	15.9%	VX*	14.8%	US	2.2%	AS	1.2%
15	NY3-SF2	New York area - San Francisco area	6-5	2,179,820	\$586,641,443	18.8%	18.5%	AA*	16.0%	VX*	15.7%	B6*	14.5%	DL*	12.8%	US	1.9%	AS	1.0%
Total Nonstop Overlaps			15,138,745	\$3,188,145,085															
Total Domestic Industry			387,928,423	\$67,452,006,516															

## United and Continental Connecting Overlaps City Pairs, 2009

<b>Change in Competitors</b>	<b>Number of City Pairs</b>	<b>Total Passengers</b>	<b>Total Revenue</b>
2-1	3	41,091	\$8,573,811
3-2	35	686,461	\$165,926,671
4-3	75	1,916,770	\$521,107,790
Total Connecting Overlaps	113	2,644,322	\$695,608,272
Total Domestic Industry	41,256	387,928,423	\$67,452,006,516