PROPOSITION RJ

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It is a real pleasure for me to have been invited to speak with you this morning regarding a study that we made, the report of which was published in May 1999 as Proposition RJ: An Alliance to Enhance Airline Competition.

There is an awful lot of speculation out there as to why it is that we did this. As you heard in my biography earlier, much of my career has been spent working on behalf of labor. As a consultant, that should be very important. As a result of this study, I'm not sure I'm on any labor group's "A" list to be doing work in the future. And it is a sacrifice that I feel very strongly about. One of the reasons is that much of my work with labor has been done when an airline has been in a distress situation. We've worked as advisors to labor during those negotiations. But I've never understood how it is that you can be sitting at a negotiating table, taking money out of your pocket, and in return you are probably getting stock or some flavor of equity and then in the other room there is a group of lawyers writing scope language that limits your ability to compete, and therefore somehow that artificially affects the risk/reward ratio.

It is the regional jets and competition and the networks that have access to them, and the networks that don't, that I think is really the issue. While scope clauses are written for a lot of good reasons, they are hindering a company's ability to compete when the competition has access to this tool and your carrier does not. I think you have to ask the question, Have I not put more jobs in jeopardy long-term by having this limiting language than by allowing my company to have a sufficient number in order to meet the competition head-on?

In May 1999, just before the RAA convention and just before we released our report, an editorial appeared in Airline Business entitled "Time to Talk About the Scope Clause." Karen Walker really got focused on the subject very quickly, and this whole issue questioning labor-management issues she called taboo—one that has been avoided in the past. But it is time to talk about it. It does have an effect on all of the things that Randy talked about earlier—whether it be the regional jet and how it is going to be used in the future, and certainly alliances, labor is a player, and they have a lot of concerns on where it is that those jobs are going to be and who is going to do the flying, and all those rightful questions. I think any of us doing any forecasting have to recognize that labor is, indeed, a force. They are a lot of bright people and they have issues that we need to listen to and will certainly affect the ultimate outcome.

Most of labor's recent response to our study has been that we are a solution looking for a problem. I think it is a clever statement and we agree that there is a solution to this and that there is a problem. Any time we have picked up the press in the last few months and with many of the actions by Atlantic Coast just in the last couple of weeks, it certainly underscores the issue of the constraints that they face as a company and how it is that they are choosing to deal with them as a corporate entity.

Since 1992, the number of city pairs and the numbers of cities receiving regional jet service have grown at a tremendous pace, as evidenced by the slope of the curve in Figure 1. I think we can all expect that this trend will continue into the future and certainly there have been changes since the report was released in May.

But despite the fact that the slope of the growth line is steep, the regional jet accounts for less than 6 percent of all airline departures and about 3 percent of the seats that operate in the domestic system today—not significant, despite all the growth (Figure 2).

This is where we begin to define the "have" and the "have-not" networks. When I talk about "have" and "have-not" networks, the "have" networks are those that have significant access to regional jets and very few limitations in their respective scope clauses. The "have" networks for purposes of our discussion are Delta, Continental, and America West. Throughout the study, we are really talking about the major network carriers. As we would expect, the "have" networks operate about two-thirds of the service out there today in terms of cities and city pairs and departures (Figure 3).

Historically, and in a very short summary, I will try to catch up from May when we released the report. RJ flying is hub concentrated (Figure 4). The way we have approached this analysis is that this trend and this hub concentration will continue into the future. Part of the reason for looking at this that way—and there are some pieces that we can agree with and some we can disagree with—is that we were trying to take 15 years of labor sensitivity and to appreciate where it is that labor would be most comfortable in seeing regional jets used versus a lot of point-to-point flying. A lot of the questions that Randy Malin posed fall under how point-to-point flying is going to evolve, while appreciating that it is going to be something that will make some of the labor groups very uncomfortable. We really have taken a hub-oriented focus.

So what has happened since the release of the report? The idea is to take a look at the expansion in service and at those services that have been hub-directed (Figure 5). Of the services that have been introduced since May, 95 percent are still directed toward the hub. There is one exception—US Airways. Only 11 percent of its segments have been directed toward the hubs. The remainder of that service is going to LaGuardia Airport. They have really chosen to do something very different with the regional jets that they now have access to.

Also shown in Figure 5 are the new markets, where it is that regional jets have exited and have been redeployed in other markets—markets where we have witnessed

increased frequency and where we have seen frequency decrease. So the focus here has been, as expected, on new markets and increased frequency in existing markets, confirming the historical deployment shown earlier.

Figure 5 is shown for a reason I'll just be honest about. We took a lot of abuse on this, that all this airplane is going to do is to be used in big markets. That is what it does. It serves big markets—hubs. Markets referred to in the study were based on the FAA definition of a non-hub, a small-hub, and a medium-hub market. When you take a look at the cities that are receiving regional jet service, it is the small- and the non-hub markets that have benefited. They have really seen the quality of their access to the air transportation system improved as a result of this airplane.

Lo and behold, even in the small-hub markets, we see city pairs where we have RJs competing with RJs. I think a lot of the idea is that the market can only sustain one service or multiple frequencies to one hub, and that doesn't seem to be the case, at least on the basis of analysis of the data today. These are markets that have seen growth, that the consumer chooses to use. They like the regional jet and it is now an alternative for them. Again, we have seen growth, and I think the competition reflects that the regional jet can be profitably used in smaller and medium-sized markets (Figures 6 and 7).

The big issue for labor today as regional jets come into the system is whether they take flying away. What our analysis shows is that the strong majority use of the regional jet has been to add new service and to replace the turboprop and that there has not been a significant loss of mainline flying (Figure 8). Just what has been the mission of the airplane? Thirty percent have been to start new service and the mainline naturally benefits at the hub.

An example that we used in the study is an announcement that Delta made in April, in which the mainline was going to be taken out of shorter-haul routes—Daytona Beach, Melbourne, and Tallahassee in Florida and Albany, Georgia, and Montgomery, Alabama—they dropped frequency. At the same time, those aircraft were redeployed and the mainline pilots benefited from longer-haul flying to points in the West—San Francisco, Los Angeles, Denver, and San Antonio. The net benefit to the Delta mainline pilot was a gain of 10.5 block hours per day. A gain in block hours creates net new pilot jobs as manpower requirements are dictated by flying time (Figure 9).

When Atlantic Coast got its first regional jets and announced service from Dulles to Nashville, we saw a tremendous stimulation of international demand using the Washington Dulles gateway. In fact, number of passengers went from 500 a year to over 3,500 with the initial introduction of the airplane. The folks in Nashville had access to a new gateway and a carrier that held a fairly insignificant presence in that city (Figure 10).

Where do these airplanes operate? They operate in local markets that, for the most part, have fewer than 100 passengers per day each way (PDEW). These are not markets where the mainline can put a 737 in three times a day and be competitive or economic. There has been much discussion of this airplane's replacing the mainline jet—and it's true. A lot of the markets where the regional jet is flying today are those markets that were dropped by the mainline during the last recession and the Gulf War, when we saw the systems weaned for the most part. Today the airplanes are properly sized to go back, reenter those markets, and enjoy the benefits at their respective hubs (Figure 11). Figure 12 shows what happens if there is reduced mainline frequency or the mainline jet service has been supplemented by a regional jet once a day. For example, go back to the Delta example where they dropped frequency to Melbourne, Florida. The fact is that the mainline financial performance in that particular city pair tends to improve and accrue benefits to the mainline carrier. Delta's numbers, for example, would look significantly better going from three frequencies to two in certain markets and not really skip a beat in terms of revenue and traffic generation.

Another way to look at this, as Delta cited in its press release with Atlantic Coast, is to look at Cincinnati. Comair is the carrier that has used this airplane the longest and gives us the best empirical look at what has happened. The Delta mainline pilot is correct when he or she says that our flying is not growing at Cincinnati. What Comair has done is to augment the rapid expansion of flying at Cincinnati by Delta mainline by bringing the regional jets on board. Today, that hub is well protected by regional jet service and is, in fact, the only city that can actually state that it has jet service to every point served nonstop from that hub.

While Delta mainline may not have continued to add services to Cincinnati, what it was enabled to do was begin to redeploy and redirect those assets to do other things. You really saw Cincinnati and Delta's mainline service stop growing at Cincinnati in 1996—the same time that they were negotiating a new pilot agreement—the agreement where they negotiated Delta Express and began to focus their energies elsewhere. While Cincinnati is flat, Delta Express added 36,500 block hours of flying to the Delta system, and the Atlanta hub grew by 53,000 block hours—a significant amount—despite the fact that Delta Express was specifically designed to overfly the Atlanta hub. This is where you do see growth in the system. It may not be at Cincinnati, but those assets are able to be redeployed as this network is secured by use of the regional jet. That is a competitive benefit that accrues directly to Delta and then gives them advantage over their competition (Figure 13).

As Comair began to bring the RJs on board to support Delta's network, we found that 3,300 new PDEWs were brought to Cincinnati by the Comair system in new markets or markets where the regional jet replaced the turboprop. You bring 3,300 new passengers a day and these are passengers who now connect to longer-haul mainline services. It is a definite benefit. The average hub stimulation in mar-

kets where Comair operates regional jets is 57 percent.

Again, to restate the basic concept, in those spoke cities where the regional jet operates, Delta's assets can be redeployed and used on other parts of the network. You really saw Delta's presence increased at those spokes. Passengers were either redirected to Atlanta or were put into the Delta Express system. We found an increase of almost 10,000 new PDEWs generated as a result of the redeployment of those specific assets.

This is how we approached this study. We modeled every carrier network, every hub, in order to make our determination of the number of regional jet opportunities for each specific hub for each network. I think it is important for this group that I discuss the criteria we used for markets: only spoke-to-hub routes, stage lengths of 900 miles or less, circuity of 140 percent or less, markets with reported network PDEWs of 100 or more, partner or mainline network connections only (no regional-to-regional connections assumed), modest stimulation of markets where there was minimal competition, and markets with no nonstop jet service, with turboprop service, or with less than twice-weekly jet service.

Regarding each of the assumptions made, there is a sensitivity to labor in every one. The idea was not to replace mainline jets. The idea was to make each network stronger and make it competitive vis-à-vis, in Delta's case, United, or in US Airways' case, Continental or Delta—those carriers that do not have unlimited or reasonable access to match the opportunities in their system.

A major question for labor should be competition and how does that translate into jobs? Does it make sense to write language that limits my carrier's ability to compete? If I bring more people to my hub, I need more 757s, I need more 737s to carry people to their ultimate destination. So what we did is take a look at those networks where we saw the greatest number of opportunities. What we found, in terms of decreasing order and based on the potential number to feed to that hub each day, was as follows: United currently limited to 65 regional jet units; US Airways currently limited to 30; Northwest currently limited to 54; Delta, unlimited; and American, unlimited on the lower end but some limits on the higher end in terms of seating capacity (Figure 14).

The point is that, at present, United and US Airways are significantly scope-clause constrained. Over the long term, a large number of opportunities can accrue to those carriers. If they don't get there, someone is going to, and will benefit at the others' expense.

To illustrate this, we looked at the hub and we looked at market sizes. Again, our view shows some sensitivity to labor. We see the greatest number of opportunities accruing to the regional jet aircraft at 50 seats or less. I know I have an esteemed colleague or two in this room who have some different views on regional jet aircraft that have larger configurations, and those views are correct. But what opportunities I think are obtainable in the U.S. in the near or medium term, and considering labor, are going to be found in smaller-size jets.

With Delta, we still see a tremendous opportunity to build Cincinnati. What we know is that Comair is contemplating a very large order for airplanes in the 37-seat category, and I think that is exactly what this analysis says—that there is still a way to continue to grow there. There are other constraints that you will have to discuss as to whether you can continue to build Cincinnati to this level. However, the fact of the matter is there are still a number of market opportunities that can accrue to the Delta network (Figure 15).

When we analyzed the Northwest network, Memphis was the number one regional jet opportunity among U.S. carrier hubs. Prior to the release of our study, Northwest had just completed its contentious pilot negotiations, gained access to 54 regional jet units, and announced that 42 of those 54 units were going to be used to build its Memphis hub. We think that there is tremendous opportunity for Northwest. This summer it added a fourth connecting bank, which I think says that Northwest is focused on doing some buildup of that tertiary hub (Figure 16).

When we did this study, we anticipated that USAirways probably had some terrific opportunities available, but I had no idea that there were so many. In terms of adding new cities or seeing city pairs improve by use of the regional jet, we estimated 268 new route opportunities available to the US Airways network. Remember that I said earlier they were constrained to 30. So there is a significant number of opportunities available to US Airways today that it cannot satisfy as a result of these scope-clause constraints (Figure 17).

It is my understanding that US Airways and its pilots are meeting outside of normal negotiations, or Section 6 negotiations, with the regional jet issue being front and center in those negotiations. It is a fairly significant event when you have scope negotiations outside of normal negotiations. US Airways has asked its pilots for 422 regional jets of all flavors, meaning from 30 seats to 90 seats—a large number.

I think that the issues at United are really underscored by Atlantic Coast Airline's recent decision to do business with Delta. The United system is limited to 65 units today. There are more than 65 opportunities available to United at Washington Dulles alone, but those 65 opportunities don't just accrue to Atlantic Coast; they accrue to Sky West, Air Wisconsin, and other carriers in the United network. Therefore, Atlantic Coast found a partner that had no limits and where they could, as a company, enjoy the benefits that the regional jet brings to it and will now work for two partners, not just one. United and its pilots are in negotiations today. For United, we estimated 232 opportunities to that network and United has asked its pilots for 284 (Figure 18).

This scope issue is not a big one. It is a carrier-to-

carrier, network-to-network issue that hasn't been quantified. It has been talked about, but it hasn't been quantified and made public. We have not provided qualitative, anecdotal evidence. Based on our assumptions, we estimate some 800 market opportunities that cannot be satisfied given the current scope-clause constraints (Figure 19).

Those that are unconstrained, of course, can order all the jets they want, but those three networks are not going to satisfy all of the issues that are important to consumers and cities in all regions of the country—it cannot happen because of the geographic bias of our hub system.

You have three carriers that are unconstrained—Delta, Continental, and America West. The point is that they can continue to add regional jets without limits, and the fact of the matter is that each one of their respective hubs becomes stronger against the competition every day, and those hubs very much overlap the competition.

Figure 20 represents the whole issue of feed. If the unconstrained carriers continue to add, who gets hurt? We see US Airways getting hurt, specifically the Pittsburgh hub. We see United being number two, with Dulles losing the greatest number of opportunities. This was just a very simple matrix that said the first guy in takes away the opportunity from a potential competitor. We know there is competition at these spokes, but the fact of the matter is there is a benefit that accrues to the first competitor in.

When you lose that feed, somehow it converts to jobs. What our analysis shows is that the most potential job loss is to the United pilots, primarily because they fly bigger equipment, and secondly to US Airways (Figure 21).

To carry the argument further, if the next currently constrained carrier expands the RJ limit and begins to add more regional jets, who would get hurt? The matrix in Figure 22 shows how the respective networks overlap.

Finally, we close with how this idea started and the fact that our effort has been funded partially by a group of airports. We went out to visit carriers to present market opportunities. What we heard a number of times is, Yes, the service certainly can support a regional jet. The problem is we only have access to so many. So you may get one; or you may not get one. Communities want them. It is not very complicated. Fargo, ND, where we saw United add service to both Denver and Chicago hubs, opened up a number of new markets and, more important, helped to compete with the monopoly service received by Northwest over its Minneapolis hub (Figure 23).

If you look at the service that Northwest offered over the Minneapolis hub on this monopoly service prior to entry, it offered service to 115 on-line city pairs. When they added Denver, we saw 40 new city pairs added. So now Fargo has access to 155. By the time to you add Chicago to the mix, the number grows to 201 on-line city pairs (Figure 24). The consumer in Fargo definitely benefited from the addition of these two services.

But, more important, of the original 115 monopoly city pairs, 80 now receive competitive service and that is really the issue in the longer term. I am not going to make any wide-ranging prediction on price because we all know, as Randy Malin said, that the regional jet is not the panacea for price, but competition is good, and this technology that enables hub and network competition should not be constrained.

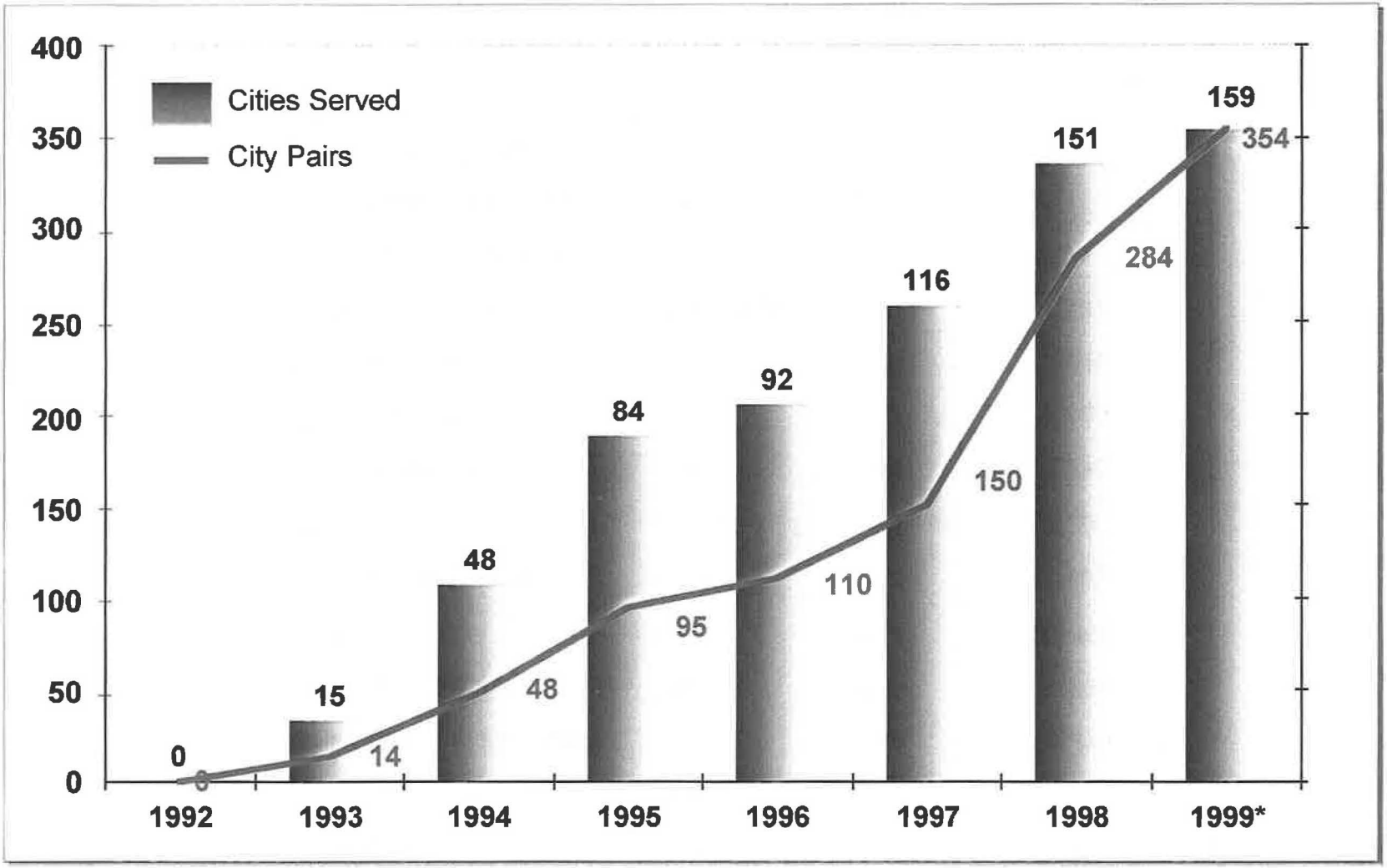


FIGURE 1 U.S. cities served by RJ aircraft [source: Official Airline Guide (OAG), North American Edition, 2Q'99].

Carrier	Code-Share Partners	Daily RJ Departures	Daily RJ Seats
Air Wisconsin	UA	22	1,100
American Eagle	AA	175	8,742
Atlantic Coast Airlines	UA	109	5,470
Atlantic Southeast Airlines	DL	155	7,764
Comair	DL	537	26,865
Continental Express	CO	212	10,603
Mesa Airlines	US/HP	144	7,203
Mesaba Airlines	NW	144	12,240
Midway Airlines		72	3,634
Skywest Airlines	DL	79	3,949
Trans States Airlines	UA/TW/DL	30	1,487
Total Daily RJ Departures		1,679	89,057
Total Daily Domestic Departures		30,454	2,882,139
Daily RJ Departures as % of Daily Domestic Departures		5.9%	3.1%

FIGURE 2 Airline departures and domestic seats accounted for by RJs (source: OAG, North American Edition, 2Q'99).

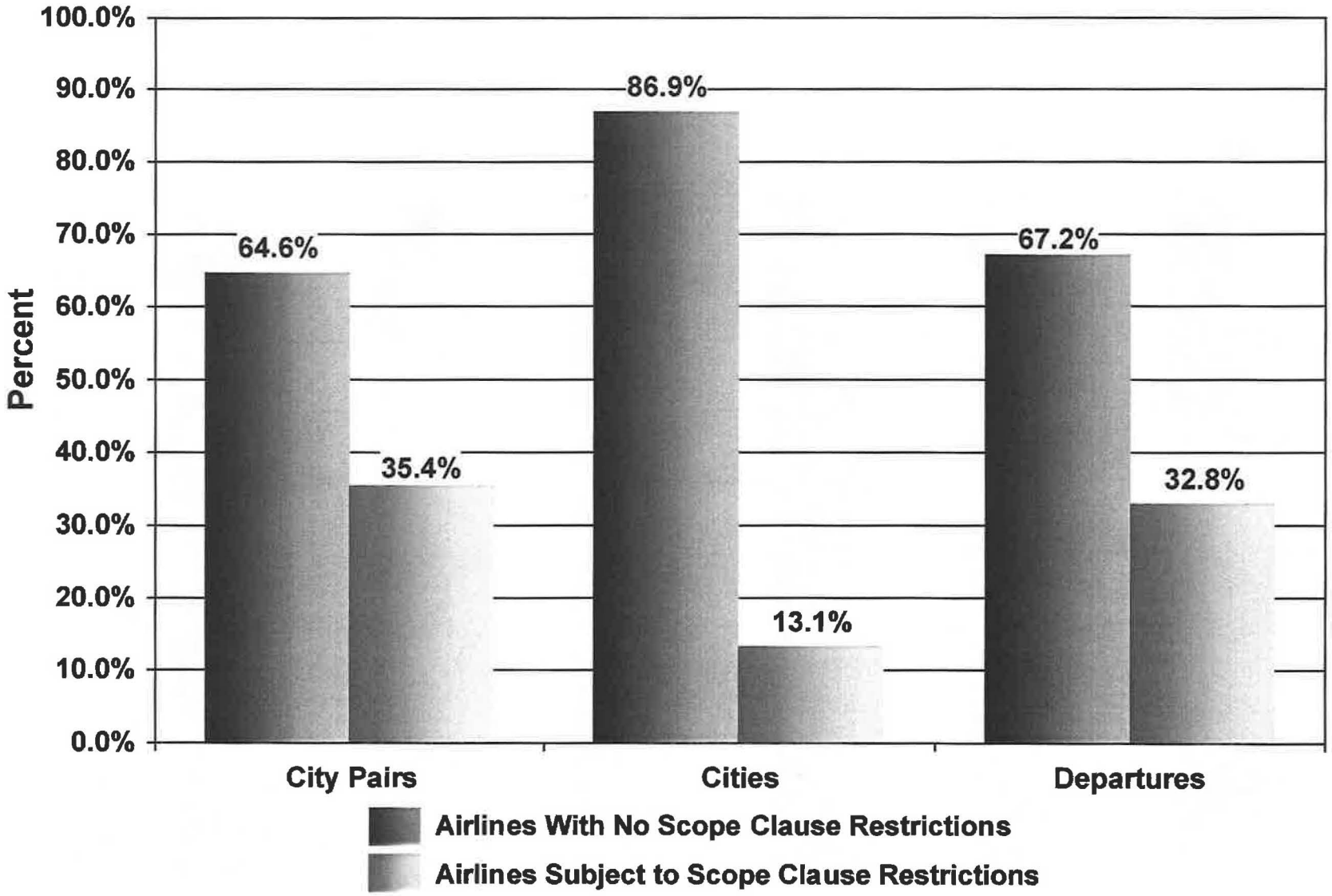


FIGURE 3 Carriers deploying RJ service: "have" and "have not" networks (source: GKMG analysis of OAG 2Q'99).

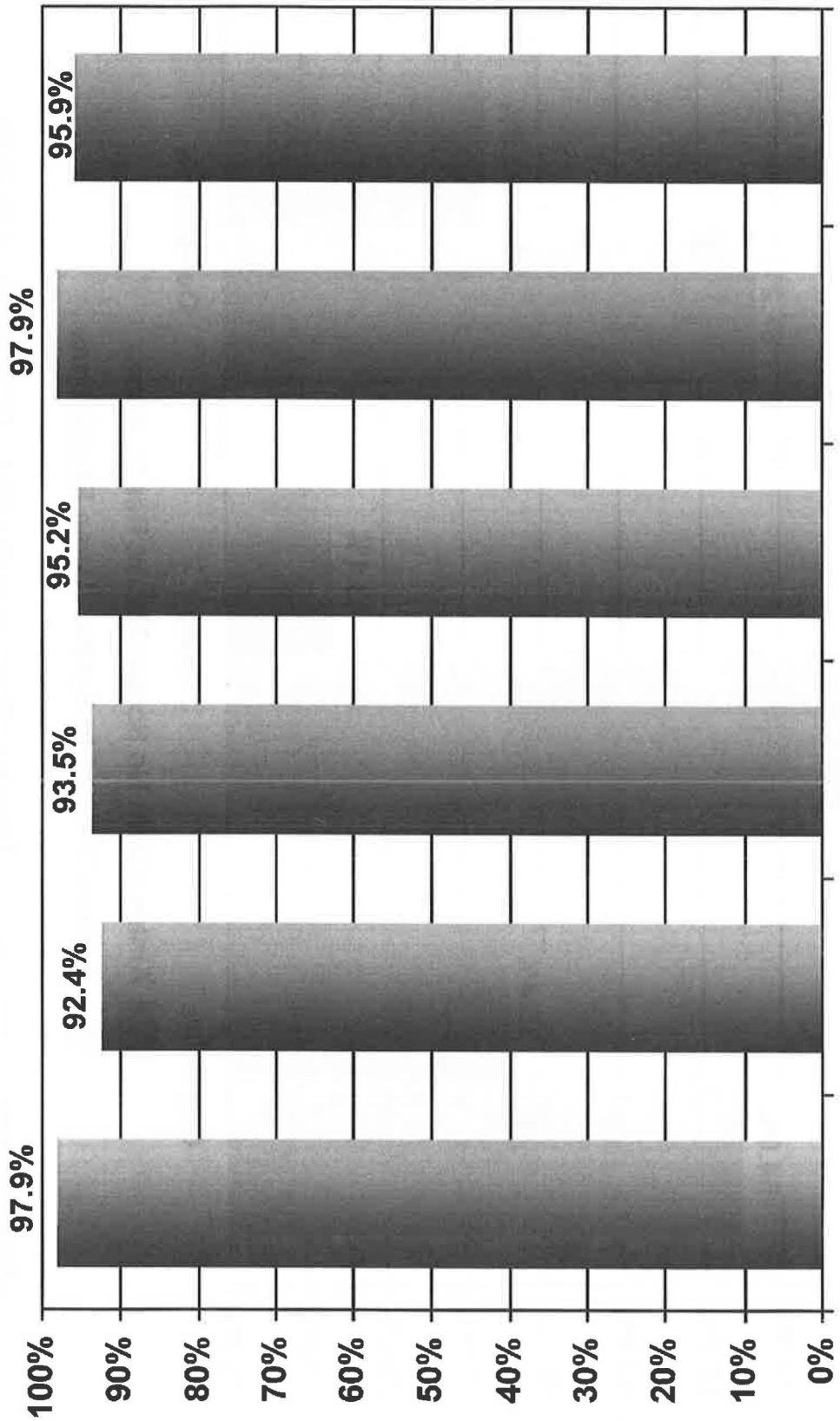


FIGURE 4 Hub flying by RJs (source: GKMG analysis of OAG 2Q'99).

	Percent of changes in RJ flying involving Hubs	Type of change in segments served			
		New	Exit	Increased Frequency	Decreased Frequency
America West	100%	8	2	4	—
Continental	100	35	6	24	—
Delta	88	22	14	43	19
Sub-Total Unconstrained		65	22	71	19
Sub-Total Percent		37%	12%	40%	11%
American	95%	10	10	16	2
Northwest	100	9	6	26	6
TWA	—	—	—	—	—
United	100	—	2	12	8
US Airways	11	23	—	10	12
Sub-Total Unconstrained		42	18	64	28
Sub-Total Percent		28%	28%	42%	18%

FIGURE 5 Developments since release of GKMG report in May 1999 (source: GKMG analysis of 3Q'99 regional jet schedules as compared with those in 2Q'99).

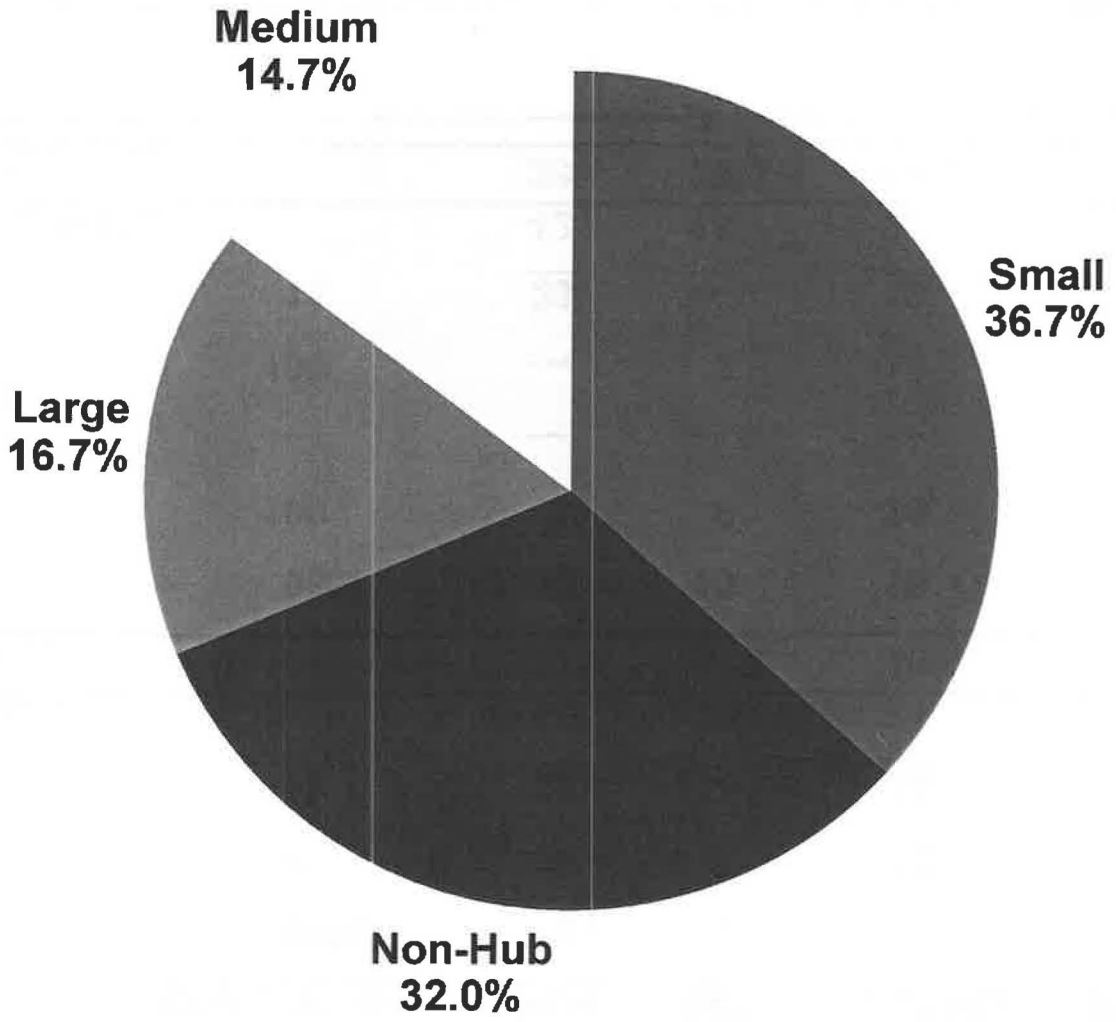


FIGURE 6 Percent of airports with RJ service grouped by airport size (as defined by DOT on basis of share of U.S. enplanements) (OAG, 3Q'99).

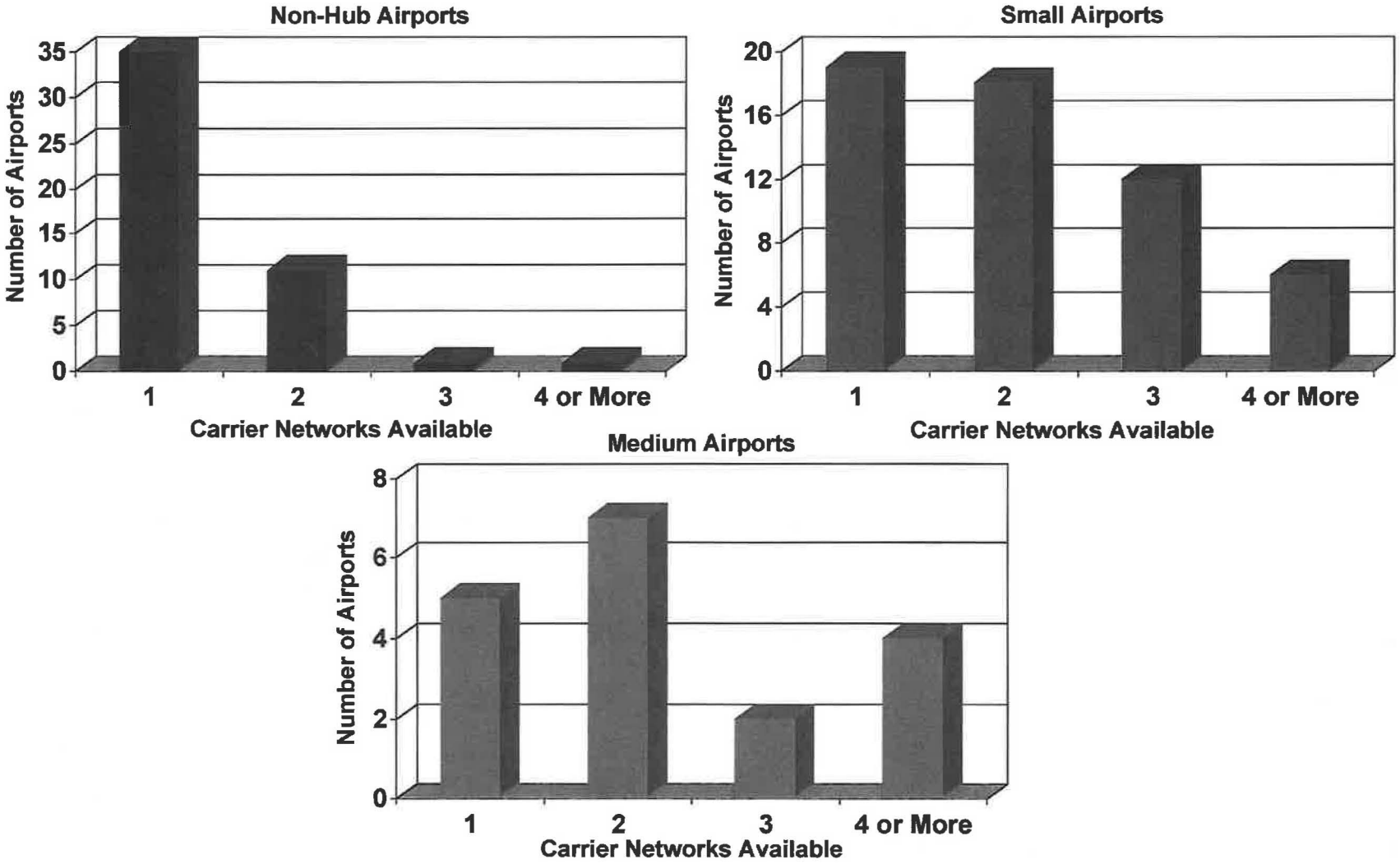
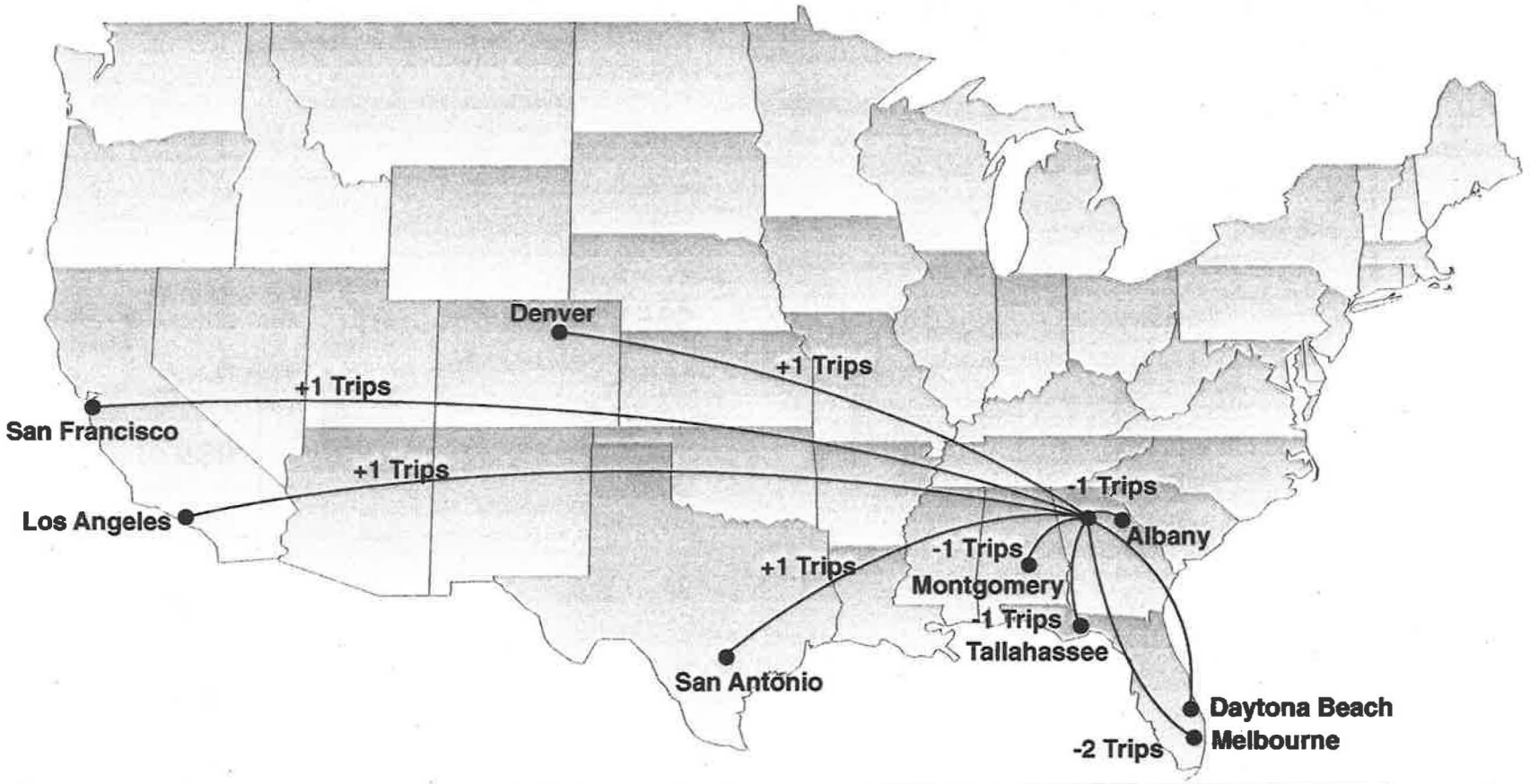


FIGURE 7 Carrier competition via RJs at spoke markets.

Carrier	New Service	Replace Turboprop Service	Supplement Turboprop Service	Supplement Jet Service	Supplement Turboprop and Jet Service	Replace Turboprop and Jet Service	Replace Jet Service
American	36%	14%	45%	5%	0%	0%	0%
America West	46	-	15	31	0	0	8
Continental	37	-	15	24	4	0	20
Delta							
ASA	14	4	57	11	7	0	7
Comair	27	12	21	20	7	2	11
Skywest	12	4	8	30	12	0	34
Northwest	15	0	2	39	42	0	2
United							
Atlantic Coast	46	13	25	8	8	0	0
Air Wisconsin	100	0	0	0	0	0	0
TransStates	72	0	14	0	14	0	0
US Airways	50	0	39	0	0	0	11
TOTAL	30%	6%	21%	23%	10%	1%	9%

FIGURE 8 New flying created and mainline operations replaced by RJs (source: GKMG analysis of OAG 2Q'99).



Summary					
Trips Lost to Mainline	7	Trips Granted to Mainline	4	Difference 10.9	Mainline Block Hours Granted by Mainline
Block Hours Lost	16.3	Block Hours Granted	27.2		

FIGURE 9 Significant jet block hour gains due to service adjustments using RJs.

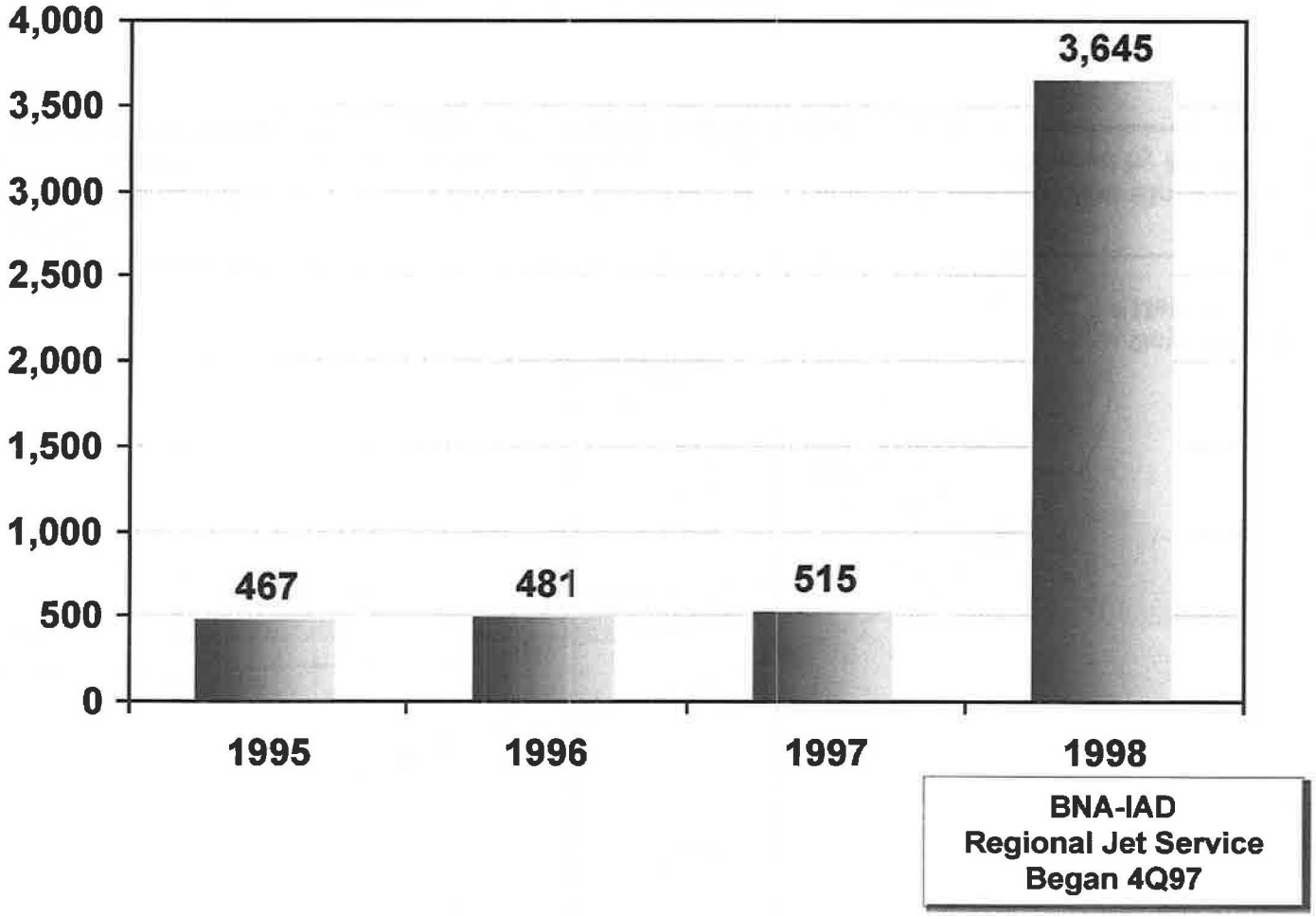


FIGURE 10 Benefit to mainline operator's international service from use of RJs: Nashville passengers using United via Dulles to Europe, third quarter, 1998 (source: DOT, databank OD1A).

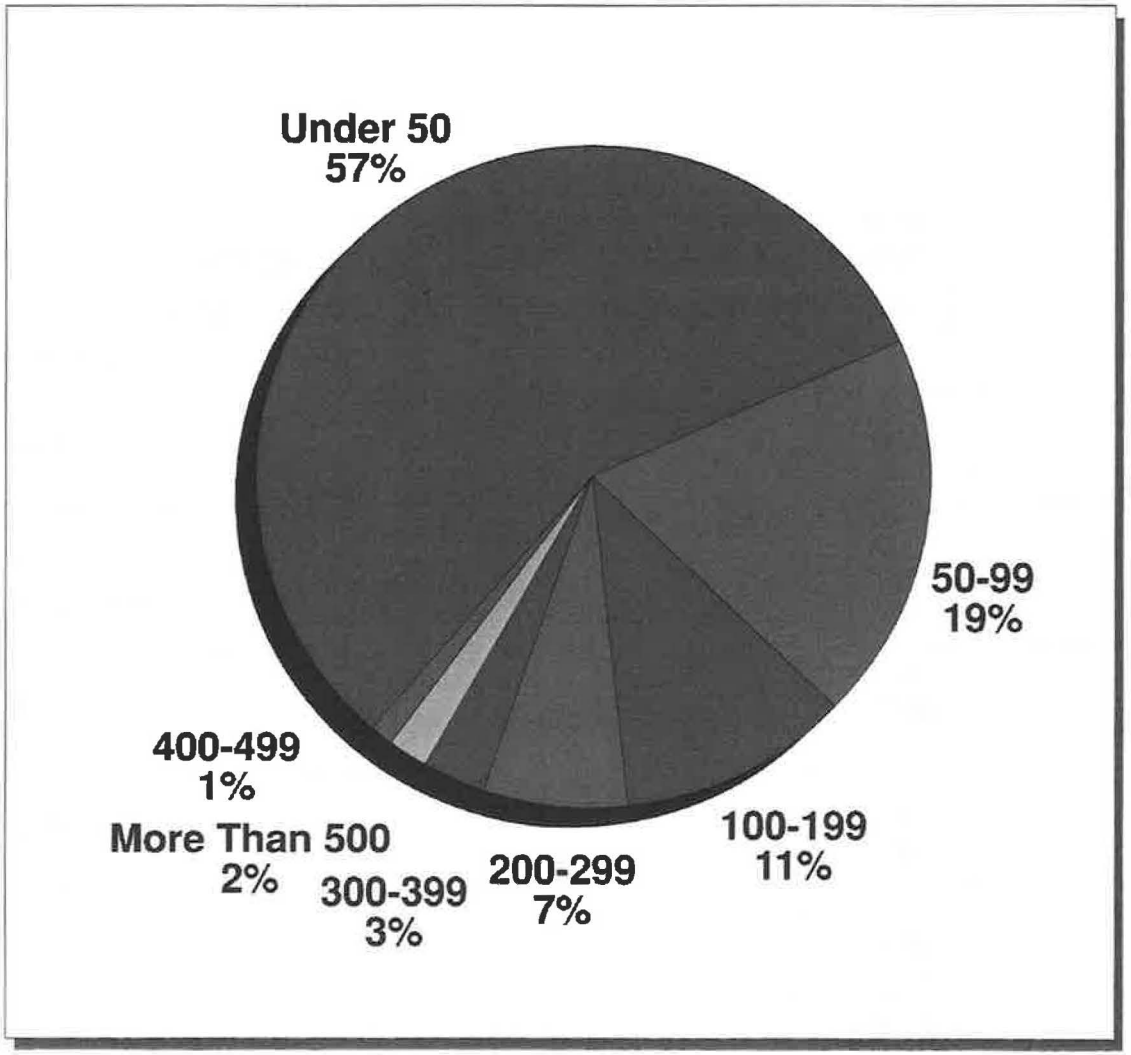


FIGURE 11 Operation of RJs in city-pair markets too small to sustain mainline jet operations (source: DOT OD1A adjusted for regional/commuter carrier participation for city-pairs receiving RJ service).

	Local Market PDEWS	Mainline Load Factor	Local Market Yield
New Service	↑	NM	NM
Supplement Jet Service	↑	↑	↑
Supplement Turboprop Service	↑	NM	↑
Supplement Both Jet and Turboprop Service	↑	↑	↑
Replace Jet Service	↑	NM	↑

Note: NM is Not Meaningful

Regional Jet Service Enhances the Profitability of the Mainline Network

FIGURE 12 Stimulation of markets and strengthening of remaining mainline markets by RJ service (source: GKMG analysis of DOT databank OD1A as adjusted, Schedule 298C, Carrier T3 Reports and Carrier T-100 Reports).

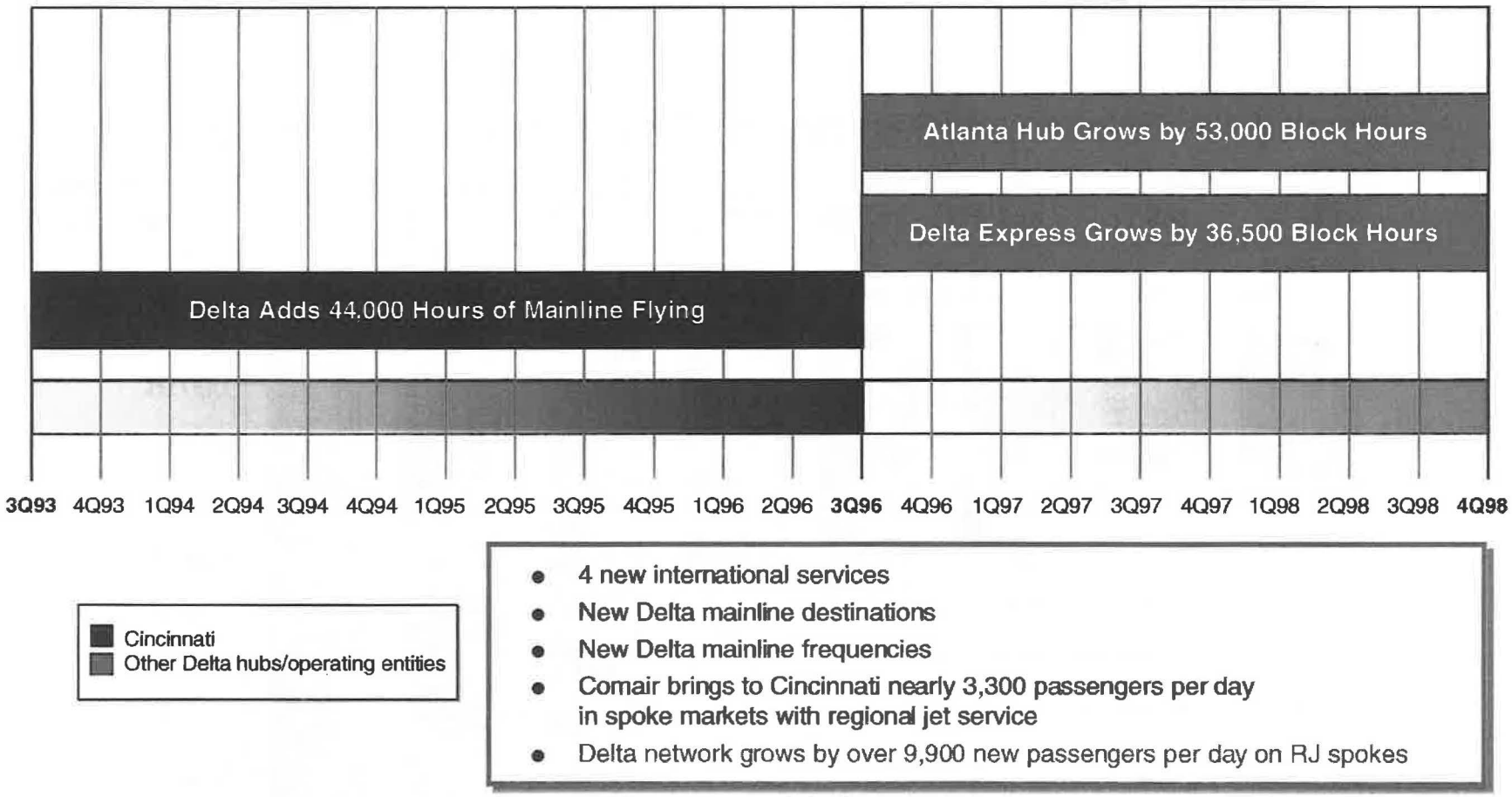
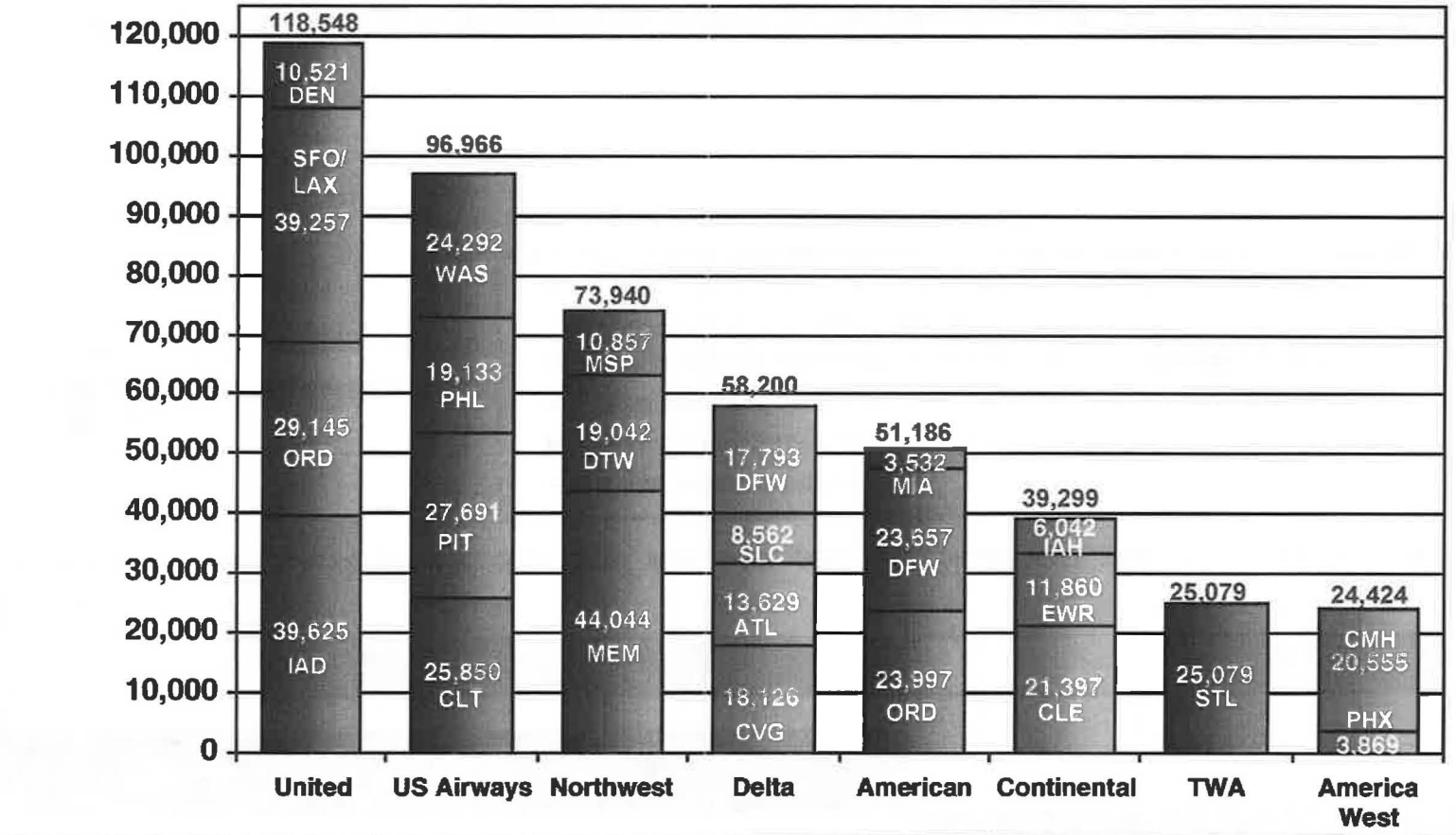


FIGURE 13 Effect of RJ service on Delta mainline growth in Cincinnati and reallocation of assets to Delta Express, Atlanta hub growth, and international operations (source: GKMG analysis of Carrier T-100 Reports).



	United	US Airways	Northwest	Delta	American	Continental	TWA	America West
Domestic	116,991	95,755	72,577	57,466	49,733	38,549	24,599	23,399
International	1,577	1,211	1,363	734	1,453	750	480	25

"Scope Clause Constrained" Airlines "Scope Clause Unconstrained" Airlines

FIGURE 14 Traffic pools available to carrier networks and their respective hubs through introduction of RJ service.

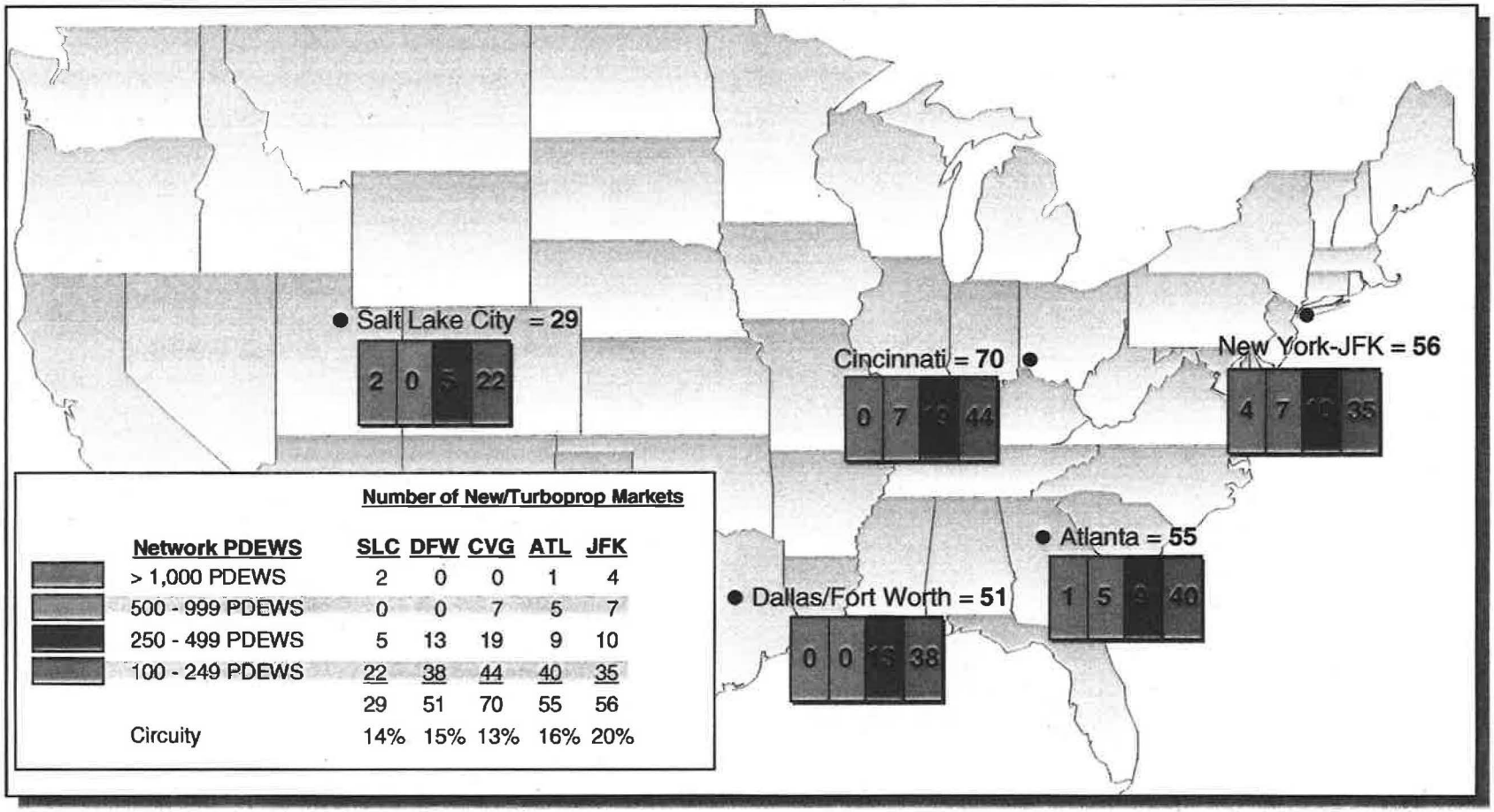


FIGURE 15 Delta RJ city-pair market opportunities.

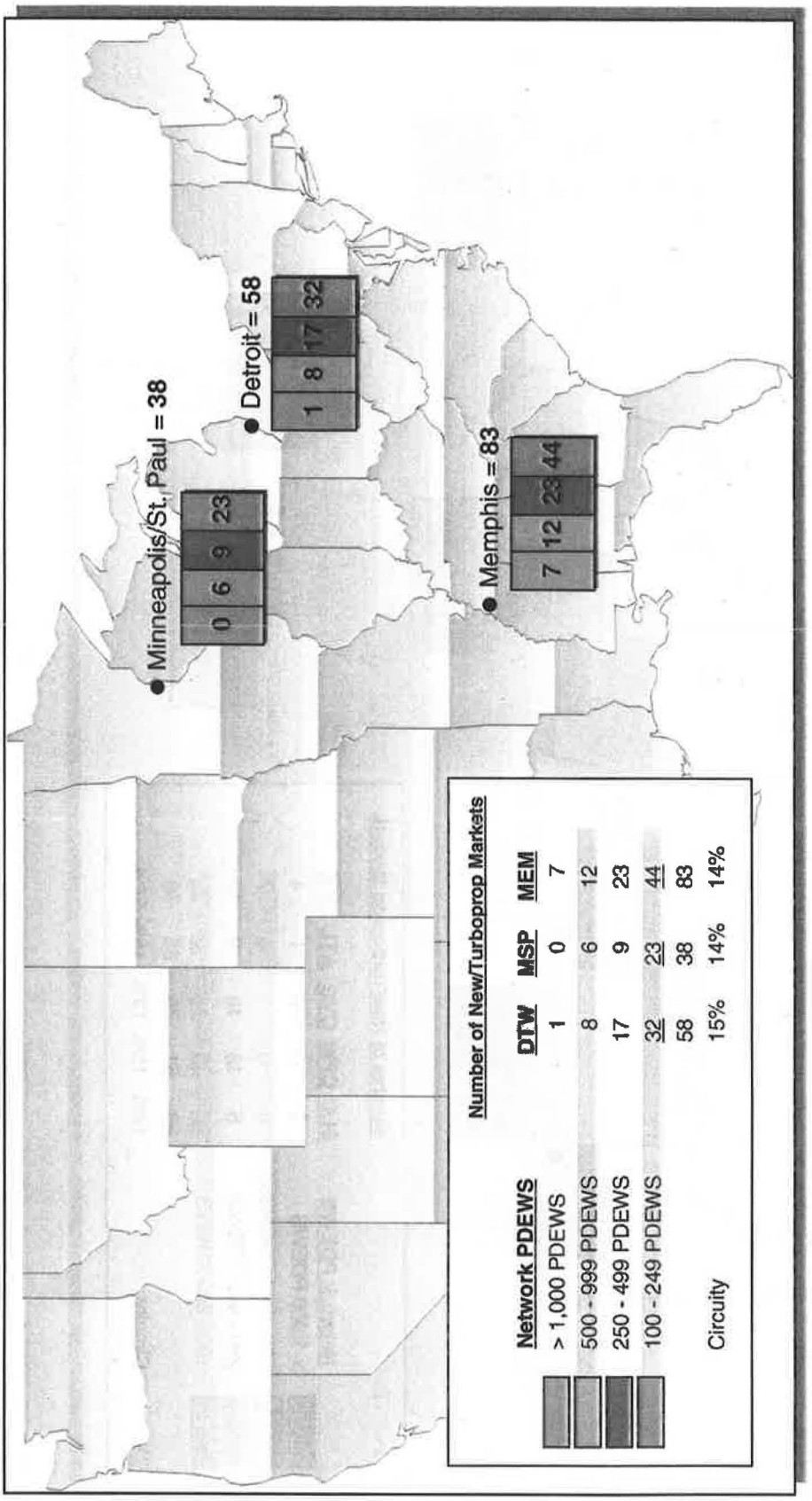


FIGURE 16 Northwest RJ city-pair market opportunities.

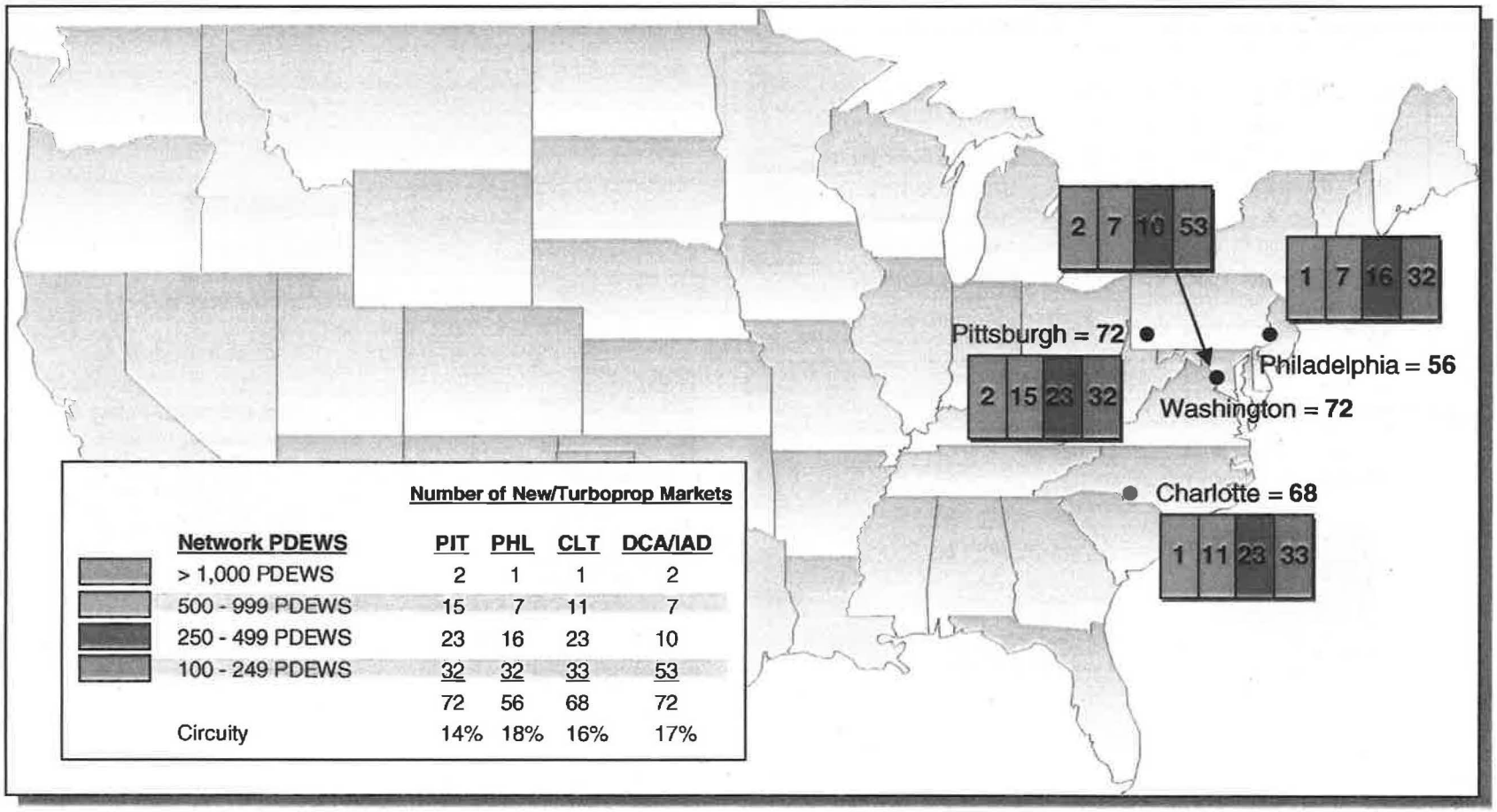
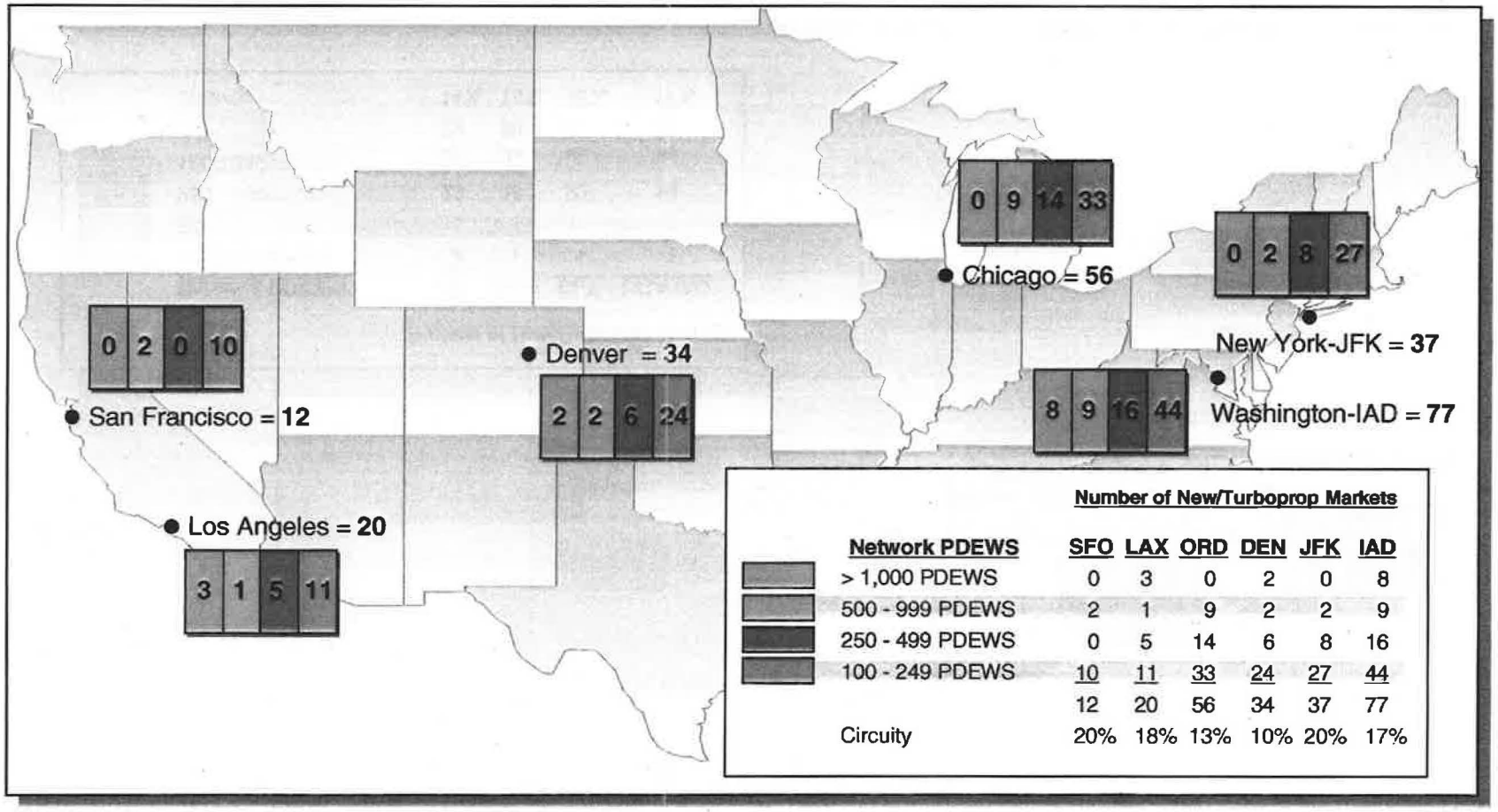


FIGURE 17 US Airways RJ city-pair market opportunities.



Network PDEWS	Number of New/Turboprop Markets SFO	LAX	ORD	DEN	JFK	IAD
> 1,000 PDEWS	0	3	0	2	0	8
500 - 999 PDEWS	2	1	9	2	2	9
250 - 499 PDEWS	0	5	14	6	8	16
100 - 249 PDEWS	10	11	33	24	27	44
	12	20	56	34	37	77
Circuity	20%	18%	13%	10%	20%	17%

FIGURE 18 United RJ city-pair market opportunities.

Carrier	New RJ Market Opportunities	Scope Clause Limit on RJ Aircraft	RJs in Service	Unobtainable Market Opportunities
America West	65	-	10	0
Continental	146	-	41	0
Delta	261	-	104	0
American	171	67	25	(129)
Northwest*	179	54	25	(114)
TWA	126	30	-	(126)
United*	236	65	23	(194)
US Airways	268	35	12	(245)
Total	1,452	251	240	(808)

☐ "Scope Clause Constrained" Airlines

*Excludes NW's AVRO 85 and UA's Bae-146s which are exempt in respective pilot agreements

FIGURE 19 Unobtainable market opportunities to major airline networks.

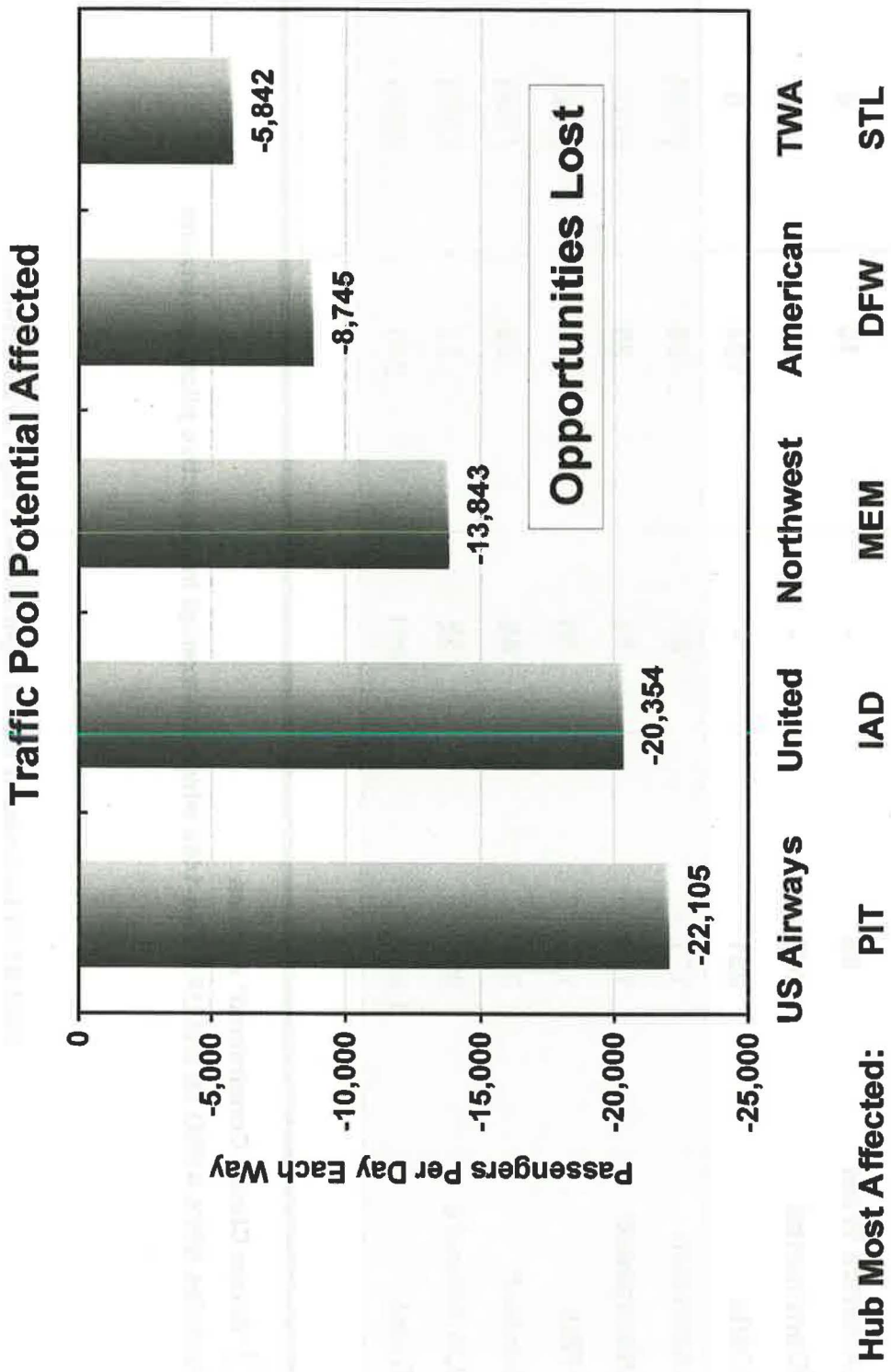


FIGURE 20 Diminished RJ traffic pools available to scope-clause-constrained airlines because of continued RJ growth by Delta, Continental, and America West.

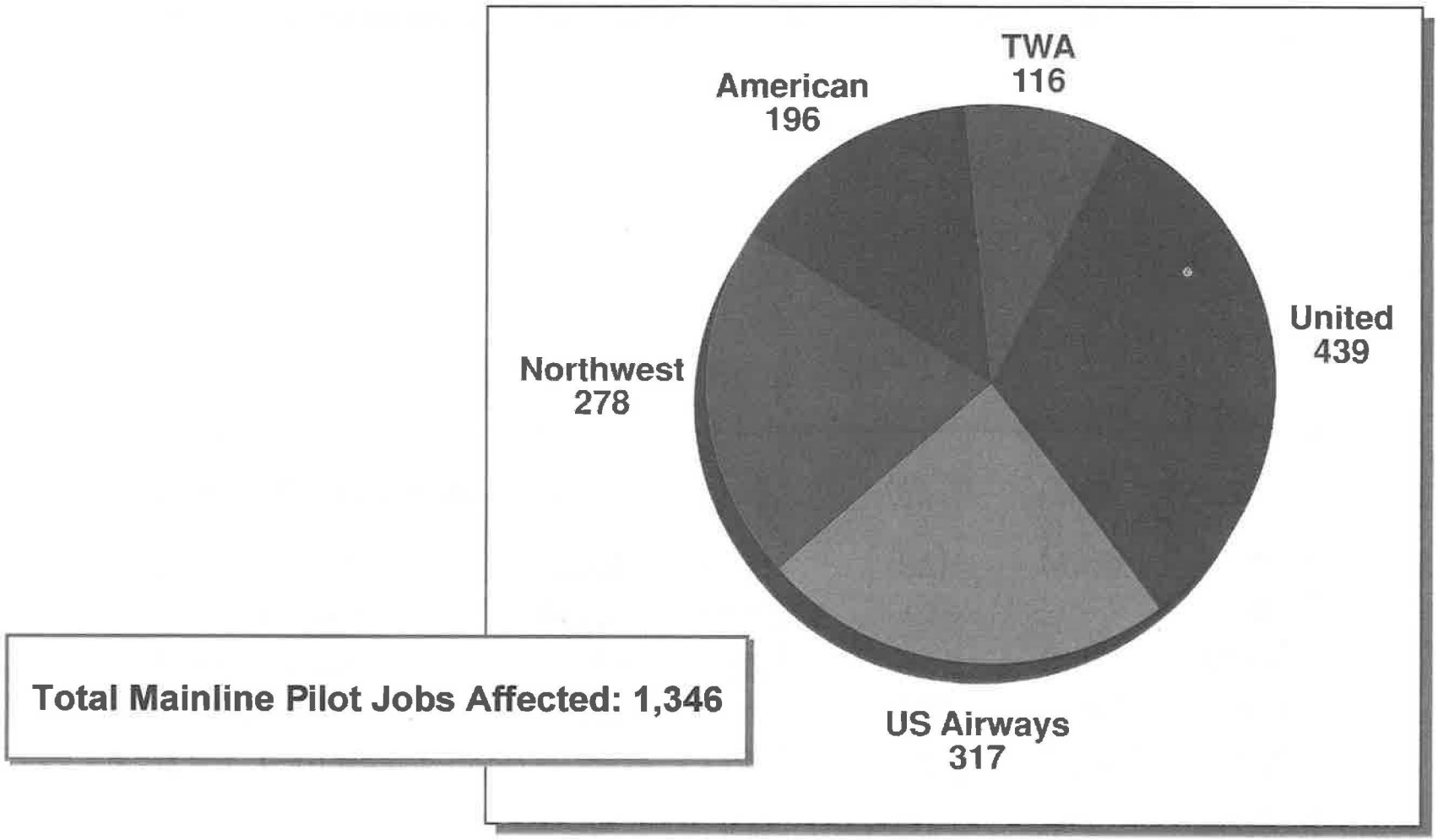


FIGURE 21 Effect on mainline pilots' jobs because of continued improvement in competitive positions of scope-clause-unconstrained Delta, Continental, and America West.

	Competitor Pilot Jobs Impacted				
	AA	NW	TW	UA	US
If AA grows:	--	(145)	(73)	(204)	(153)
If NW grows:	(136)	--	(72)	(200)	(144)
If TW grows:	(105)	(146)	--	(246)	(112)
If UA grows:	(139)	(153)	(114)	--	(86)
If US grows:	(109)	(206)	(87)	(158)	--
Average Exposure:	(122)	(163)	(87)	(202)	(124)

FIGURE 22 Effect on competitor pilot jobs by change from restricted carrier to scope-clause-unconstrained carrier.

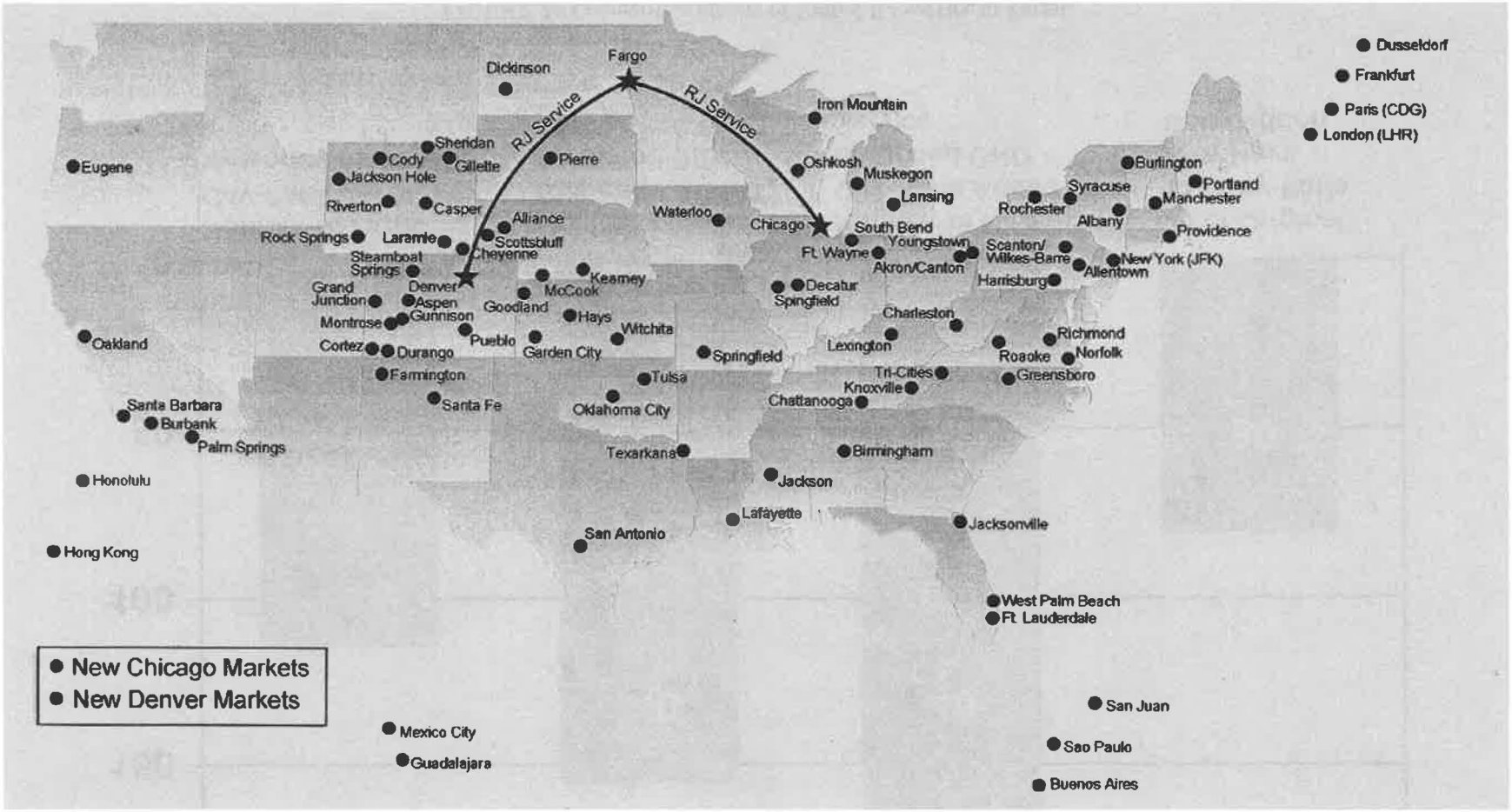


FIGURE 23 New markets opened as result of United RJ service at Fargo, ND.

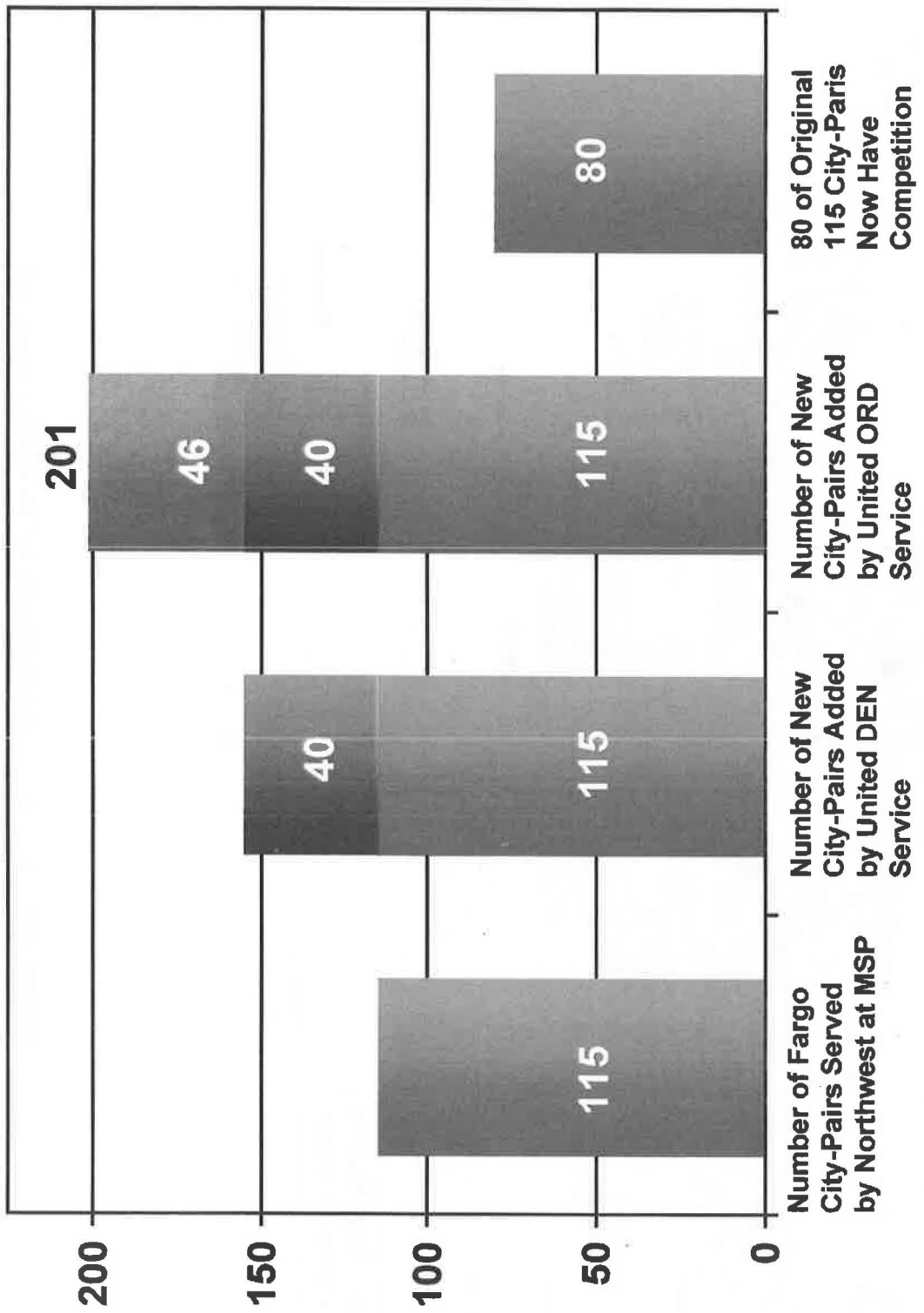


FIGURE 24 Competitive effects of United RJ service at Fargo.