

**Analysis of IntraPINES Loan Data**  
**PINES Executive Committee**  
**February 2008**

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This analysis focuses on the comparison of January 2007 to January 2008. For some worst-case comparisons we also consider the peak of October 2007. Overall, we see that the ratio of cross-systems hold transits to total hold requests has gone down by a solid 8%. This, combined with an overall decrease of 15% in transits as a percentage of holds, as well as the steady rate of 3% for transits as a percentage of circulations means that we are more efficiently processing holds, and getting closer to the goal of only transiting those items which only exist in a remote system.

We are also cutting down on the number over needless transits. The strongest evidence for this is that we now see more hold requests than we do total cross-system transits. This is reflected indirectly in the reduction of holds requiring cross-system transit (~50% to ~42%).

One last statistic to consider is the total transit time. We see that average transit times (first statistic, at the top) have been on their way up since the beginning of 2007, but January 2008 was the fastest month in the previous 8. This means that, in combination with our efforts, STAT is doing a better job at moving things around internally. More proof of this is in the standard deviation -- down to 10 days, from 20-30 in previous months.

The net effect is that patrons are getting more resources from their local system\* and for those things requiring cross-system transit, they are coming faster\*\* than in previous months. I expect this efficiency trend to continue as the last of the old log-jam works its way out of STAT.

\* 8% fewer fulfilling transits (one way), and about 10% more locally filled holds as a percentage of circulations.

\*\* 7-17 days for January 2008 as opposed to 17-35 for October 2007

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### Average transit time (in days) for holds

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2006-09 | 12.03  
 2006-10 | 12.26  
 2006-11 | 14.89  
 2006-12 | 13.36  
 2007-01 | 10.93  
 2007-02 | 10.70  
 2007-03 | 9.75  
 2007-04 | 9.61  
 2007-05 | 14.37  
 2007-06 | 15.53  
 2007-07 | 25.26  
 2007-08 | 17.70  
 2007-09 | 20.66  
 2007-10 | 26.01  
 2007-11 | 30.47  
 2007-12 | 26.84  
 2008-01 | 12.75

	January 2007	January 2008
<b>Percentage of holds fulfilled by cross-system transit</b> (Down 7-8% from Jan 07 to Jan 08)	0.500	0.428
<b>Ratio of cross-system transits to hold requests</b> There were MORE cross-system transits than there were hold requests in Jan 07!!	1.058	0.911
<b>Percentage of transits which are cross-system</b>	0.514	0.477
<b>Hold Transits as Percentage of Circs</b> Cross-system transits for hold fulfillment represent 3% of circs.	0.059	0.069

## Ratio of holds fulfilled by cross-system transit over previous six months

```
=====
aug07_cross_ratio | 0.478
sep07_cross_ratio | 0.470
oct07_cross_ratio | 0.481
nov07_cross_ratio | 0.429
dec07_cross_ratio | 0.420
jan08_cross_ratio | 0.428
```

### Unfulfilled Holds:

There seems to be a correlation between ignoring holds and increased cross-system transits, which is to be expected, I think. As holds are ignored, they tend to get captured at remote sites.

Digging a little deeper, we find that some libraries are much worse than others, throwing off the average. Averaging over library ignore ratio to smooth out the effects of "bad" libraries we get:

```
month | avg
-----+-----
2006-09 | 1.29404355425296
2006-10 | 1.30263437925599
2006-11 | 1.26929620373685
2006-12 | 1.28580020028735
2007-01 | 1.27032209534481
2007-02 | 1.26067693961583
2007-03 | 1.28263647586335
2007-04 | 1.25610240432239
2007-05 | 1.25994859338508
2007-06 | 1.27480093018173
2007-07 | 1.27345698986724
2007-08 | 1.27211018658403
2007-09 | 1.27789838881498
2007-10 | 1.28815022511332
2007-11 | 1.24029474201722
2007-12 | 1.25355596010382
2008-01 | 1.18861117426485
2008-02 | 1.13579211110552
```

From this we see that the correlation still exists, and is even a little easier to spot. The way I interpret these numbers, opportunistic hold capture delay (hold soft-stalling) has decrease the cross-system load and allowed staff to process holds more efficiently.