Welcome To The Future And, What Will They Think Of Next?

By Jim Gauntt

ince this author began writing about crosstie markets 13 years ago, there has rarely been an anxious moment surrounding the Railway Tie Association's (RTA) forecasts or the predictions for tie demand. There is, however, a fine line that one walks when framing an economic outlook in words that will go to print and thus have a long shelf life. If one gets too aggressive or conservative in the verbiage used, it can create problems for those who rely on those forecasts for business planning. Yet, over the years, the confidence placed in the RTA econometric model has solidified, and the economic outlook for the U.S. economy has offered enough certainty that presenting a balanced outlook was not too difficult a task. (See Table 1)

Enter now a brave new world where the U.S. government has provided bailout dollars of previously unimagined amounts for a variety of unimaginable reasons and entities. These new measures have ushered the United States into uncharted economic waters. While it is certainly too early to reliably predict how this new future will play out in the long term, one thing is without doubt: the short-term economic outlook does not offer any reasons to feel elated. On the other hand, as several members have commented lately, "I am sure glad we're in the railroad business rather than the banking or housing business." Well said. There have been times in the past where this would not have been uttered about railroading, and yet, here and now, the association's collective mind would probably agree whole-heartedly to this general statement. And, that is a good thing.

However, as any reader of past RTA forecasts knows, the railroad industry is affected by overall economic growth or contraction. So, even though railroads have some built-in stability with coal shipments and other critical traffic, with any downturn in U.S. GDP should come a softening of demand for freight and thus also ties.

With that as a preface, the following presentation of mid-2008 surveys should be looked at with pre-economic rescue eyes. That will be followed by some scenarios for tie demand in economic conditions that would be considered "deep" recession.

Class 1 Railroads

The surveys that were completed in mid-July by the Class 1 railroads paint a very rosy picture indeed (see Table 2).

Table 1— Current Mild Recession Scenario As published from Mid-Year Report July/August Crossties New Wood Crossties (in thousands)

Year approx.	Real GDP	Class 1 Purchases	Small Market Purchases	Total Purchases	Pct
2005	3.1%	15,029	3,776	18,805	4.5%
2006	2.9%	15,937	4,709	20,647	9.8%
2007	2.2%	15,285	5,109	20,394	-1.2%
2008	0.3%	15,163	4,725	19,888	-2.5%
2009	1.9%	15,270	4,685	19,955	0.3%
2010	1.9%	15,204	4,795	19,999	0.2%

These roads—UP, BNSF, NS, CSX, KCS, CP and CN—project that from 2009 through 2011 tie demand will exceed 16 million ties. Extremely strong demand from CN and BNSF, coupled with very steady high level demand from all the remaining Class 1s, make for a vibrant outlook given good economic conditions.

And that does not include what happens if and when the Canadian Pacific absorbs the Dakota, Minnesota and Eastern railroad. Sources tell RTA that beginning in second quarter 2009 and beyond, upwards of 350,000 additional ties annually extending through 2011 will begin to be sourced.

So, 16.4 million ties annually or U.S. and Canadian Class 1s over a three year period could be a reality if the economy holds.

Short Lines & Other Markets

Short line railroads have typically made up 70 to 75 percent of the smaller markets' total demand for ties. The surveys this year outline a more reserved sketch than in the past few years (see Table 3). This is probably a reflection of the loss of the short line tax credit. Nothing dampens enthusiasm like the loss of legislation (for most of 2008) that helped increase investment in infrastructure to the tune of 500,000 to 750,000 additional ties annually over the period 2005-2007.

But, these numbers still square fairly well with the overall projections RTA has made for the smaller markets. In good economic conditions, the smaller markets combined have contributed around 4.5 million to the total of ties demanded by the total market.

There is still a fair amount of industrial, government and export activity occurring for tie suppliers, so making up the difference between the short line demand at 3.3 million and 4.5 million isn't much of a stretch.

The real issue in discerning anything from the short line survey is that it doesn't capture every short line road's expectation. A look at percentage of track mileage reporting illustrates this well. In 2005, the survey totals were extrapolated from 37 percent of track miles reporting. In 2006, that figure rose to 40 percent and this year to 57 percent. While this would argue for improved reliability in the results, that conclusion simply cannot be verified because not every road reporting does so every year. It is a little like looking through a kaleidoscope where the view is constantly changing. Thus, comparing survey results from year to year may lead to flawed conclusions. So, the recommendation is to accept the results as they are tabulated each year without worrying about if they compare easily to any previous year's results.

In counterpoint to the more demure outlook posted by this year's collection of short line respondents, there were rumors floating around the recent AREMA conference of the construction of a new short line road to serve a remote location in Canada. This would reportedly bring 400,000 ties to the demand table if it becomes reality any time soon.

And now, we learn that the tax credit is back. This means that 4.5 million to 5.2 million ties in the smaller markets is defi-

TABLE 2—Railway Tie Association Annual Survey*

Estimated Crosstie Requirements · Class 1 Railroads 2008-2011 Inclusive												
AUTHORIZED CROSSTIES FOR 2008												
Total Track New Wood Crossties Wood Relay New Non-Wood Crossties Switch Ties (Units) Bridge Timbers												
Region	Miles	Hardwood	Softwood	Crossties	Concrete	Steel	Other	Wood	Other	Units		
Eastern U.S.	50,695	5,900,000	0	0	100	6,000	0	251,000	0	58,000		
Western U.S.	85,463	7,080,000	40,000	3,000	570,000	0	136,000	250,000	0	22,692		
Canada & Canadian Owned U.S. Track	33,300	2,925,000	500,000	0	98,000	5,000	0	95,000	0	3,000		
TOTAL	169,458	15,905,000	540,000	3,000	668,100	11,000	136,000	596,000	0	83,692		
			AUTHOR		TIES FOR 2	009						
	Total Track	New Wood	Crossties	Wood Relay	New Non-	Wood Ci	rossties	Switch Ti	es (Units)	Bridge Timbers		
Region	Miles	Hardwood	Softwood	Crossties	Concrete	Steel	Other	Wood	Other	Units		
Eastern U.S.	50,695	5,900,000	0	0	50,000	6,000	0	251,000	0	61,000		
Western U.S.	85,463	7,280,000	400,000	0	800,000	0	250,000	250,000	0	22,692		
Canada & Canadian Owned U.S. Track	33,300	2,850,000	275,000	0	75,000	5,000	0	85,000	0	3,000		
TOTAL 169,458 16,030,000 675,000 0 925,000 11,000 250,000 586,000 0 86,692												

AUTHORIZED CROSSTIES FOR 2010

	Total Track	New Wood	Crossties	Wood Relay	New Non-V	Nood Cr	ossties	Switch Tie	es (Units)	Bridge Timbers
Region	Miles	Hardwood	Softwood	Crossties	Concrete	Steel	Other	Wood	Other	Units
Eastern U.S.	50,695	5,900,000	0	0	0	6,000	0	251,000	0	62,000
Western U.S.	85,463	7,280,000	400,000	0	800,000	0	250,000	250,000	0	22,692
Canada & Canadian Owned U.S. Track	33,300	2,875,000	250,000	0	75,000	5,000	0	90,000	0	3,000
TOTAL	169,458	16,055,000	650,000	0	875,000	11,000	250,000	591,000	0	87,692

AUTHORIZED CROSSTIES FOR 2011

	Total Track	New Wood Crossties		Wood Relay	New Non-Wood Crossties			Switch Ties (Units)		Bridge Timbers
Region	Miles	Hardwood	Softwood	Crossties	Concrete	Steel	Other	Wood	Other	Units
Eastern U.S.	50,695	5,900,000	0	0	0	6,000	0	251,000	0	64,000
Western U.S.	85,463	7,280,000	400,000	0	810,000	0	250,000	250,000	0	22,692
Canada & Canadian Owned U.S. Track	33,300	2,900,000	250,000	0	75,000	5,000	0	85,000	0	3,000
TOTAL	169,458	16,080,000	650,000	0	885,000	11,000	250,000	586,000	0	89,692

*Eastern Railroads reporting - CSX Transportation and Norfolk Southern. Western Railroads reporting - Burlington Northern Santa Fe, Kansas City Southern Railway and Union Pacific. Canadian Railroads reporting - Canadian Pacific Railway (includes Soo Line) and CN/IC (includes GTW).

Volume of Wood Necessary To Produce Estimated Crosstie Requirements For Class 1 Railroads (000's omitted)

		Thousand Board Feet							
	2008	2009	2010						
Crossties - U.S. & Canada	657,800	667,480	668,200						
Switch Ties - U.S. & Canada	38,740	38,090	38,415						
Bridge Timbers - U.S. & Canada	10,880	11,270	11,400						
TOTAL BOARD FEET	707,420	716,840	718,015						

nitely an achievable scenario in good times.

So, add together the high-end projections for both markets, and that total is 21.6 million tie demand potential.

Whoa, Nelly!

Back to the future—er—reality. Recent appraisals of the economic outlook for the U.S. economy are looking gloomier and gloomier. Whether government bailouts happen at the pace and in the massive amounts projected or not, one has to believe there are some tougher economic times ahead. Otherwise, why any bailouts in the first place?

Will higher interest rates and increased inflation result from the massive printing of money by the Fed? Or, will such a large slowdown in economic activity occur, brought on by weak consumer spending, higher taxes and other pressures, that oil prices plummet and some additional freight can move by truck?

Will other legislative endeavors prevail? Have you heard about the efforts to increase allowable truck weights to 97,000 pounds? That's another story, but can you imagine what would happen to the nation's highway infrastructure and short lines if that type of legislation is enacted? Really, is there enough money to fix our failing highways and roadway bridges now? What sense is there in adding to the burden? Furthermore, what sense is there in driving a stake in the heart of the nation's only real freight competition to trucks in rural communities...the short line railroad network?

The main point here is that, to some degree, tough times lie ahead. So, to be as transparent as possible and take a peek into the looking glass at some possible scenarios, the oracle (RTA's econometric model) was consulted and asked what if the worst happens? What if the industry experiences an economic contraction that is equal to the one or two worst times in American economic history since the Great Depression?

Well first, let the record show that the last issue of *Crossties* published a mild recessionary scenario. The result? Tie demand stays right about where it is now for the next several years. (Table 1)

But that was before the latest series of crises. If you read the gloom-anddoomers then it isn't possible to look at the worst case and not believe it won't occur. So, what is the worst economic contraction in the past century besides the Great Depression?

Try 1945-1947. In those years the economy saw the following negative growth rates:

GDP%

1945: -1.1% 1946: -11.0% 1947: -0.9%

Were that unbelievable scenario to occur once again, and in exactly that way from 2008-2010, what could we expect out of the economic model RTA currently uses. Well, it's ugly...

Model Predicted Tie Demand In The Above GDP Scenario

2008: 19,469,000 2009: 15,582,000 2010: 13,818,000

Let's not go there. In fact, there are many reasons not to go there. One of these reasons was the unwinding of the war machine from World War II. Absorbing and then realigning the

Tie Categories	2007 Usage	2008 Projected	2009 Projected	2010 Projected
New 7" Ties	1,077,514	1,104,177	1,117,841	1,208,146
New 6" Ties	705,174	810,694	764,054	838,880
Sub-Total New	1,782,689	1,914,871	1,881,894	2,047,026
Relay 7" Ties Relay 6" Ties	463,007 16,364	344,131 30,211	334,081 28,028	314,813 13,170
Sub-Total Relay	479,371	374,342	362,109	327,983
Industrial 7" Ties Industrial 6" Ties	712,251 118,044	879,734 104,543	1,002,495 118,921	893,185 111,252
Sub-Total Industrial	830,295	984,277	1,121,416	1,004,436
Grand Total All Wood Ties	3,092,355	3,273,490	3,365,419	3,379,445
Switch Ties	79,643	86,550	91,314	89,907
Bridge Timbers	35,249	45,245	41,780	44,845
*In cooperation with the American Shore Note: Calculation based on survey respon	t Line and Regional Railroa ses from 139 roads, represent	d Association. ting approximately 56% of op	erating trackage.	

The Railway Tie Association wishes to thank the American Short Line and Regional Railroad Association for its expertise and assistance in conducting the Short Line Survey used in developing the tables for this report.

nation's infrastructure after the greatest world conflict in history took time. Reemploying 10,000,000 demobilized American troops, which occurred over a very short time frame, was a monumental achievement. Couple these factors with a less resilient and diverse national economic structure and double digit inflation rates during that time period, and it could be postulated that this worst case would be almost impossible to occur again.

So, what was the next worst economic contraction over a three-year period since WWII? Well, turns out there haven't been three consecutive calendar years of economic contraction since 1948. But that doesn't stop consultation with the oracle. The idea was to take years where economic contraction occurred that were close to each other 1980, 1982, and then 1980 (again) to "create" a second worst scenario. 1981 actually had modest positive growth so, to create a second worst case three-year recession scenario this is the technique used.

GDP%

1980: -0.2%	
1982: -1.9%	
1980: -0.2%	

Model Predicted Tie Demand In The Above GDP Scenario

2008: 19,732,000 2009: 18,623,000 2010: 17,741,000

That's the closest the inputs could get to three really bad years in a row when it comes to economic contraction in the U.S. economy.

In that scenario, tie demand also goes down. But, not in an unmanageable way. Remember that in 2004 this industry sold only 17,749,000 ties. That's just four years ago. True, contraction is more painful than expansion, but even in this "manufactured" second worst case scenario tie demand reverts simply to a level that has been visited in very recent times.

So, are we predicting this? No, not, unh, unh...don't like the odds of any firm forecast at this point in time. But, could it happen? Yes. Could it be better than this? Most definitely (er, maybe). The issues are plainly there and easy to see, just like it is when one sees the trees and not the forest. In other words, the big picture is out of focus for even the best prognosticator's vision at this time. Maybe industry members should be thankful that it is. Or, maybe they should simply prepare for the worst and then be grateful if it is less "bad" than what is expected, which is usually the case.

As for now? One concern for the situation: "what will they think of next?" And, how much more government intervention will be necessary (or even possible), and forced on the American taxpayer, to get the country back on the right track. §

Year Month Tie Rolling Total Annual Production Tie Rolling Total Annual Purchases Inventory Tr Rolling Total Annual Purchases Inventory Tr Rolling Total See Ratio Jan 1.615 1.7.541 14.022 556 1.019 17.363 17.487 0.81 Apr 1.853 18.598 14.254 113 1.470 17.699 0.81 Jun 1.876 19.166 14.284 30 1.467 17.521 0.82 Aug 1.852 19.121 14.343 (100) 1.755 17.943 0.79 Sep 1.789 19.258 14.242 39 1.81 18.006 0.80 Oct 1.655 19.256 14.728 386 1.266 17.933 0.82 Nov 1.373 19.253 14.465 136 1.236 18.046 0.82 Dec 1.366 18.041 14.278 33 1.465 1.866 0.76 Jan 1.273 <	TAE	BLE 4	4 —Tie F	Production	n, Purc	hases	& Inve	entory (000	's omitted)
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Dec 1,366 19,338 15,015 150 1,216 17,749 0.85 Jan 1,273 18,996 14,898 (117) 1,390 18,120 0.82 Feb 1,270 18,797 14,707 (117) 1,390 18,120 0.82 Apr 1,451 18,320 14,410 (297) 1,748 18,051 0.80 Jun 1,793 18,079 13,984 33 1,469 18,462 0.76 Jun 1,793 18,079 13,988 5 1,788 18,475 0.75 Aug 1,860 18,341 14,143 216 1,643 18,441 0.79 Nov 1,776 18,553 14,691 (8) 1,782 18,596 0.79 Nov 1,786 18,966 14,904 213 1,572 18,926 0.79 Nov 1,774 18,553 14691 (8) 1,433 8,43 0.84 Oct		Nov	1,373	19,253	14,865	136	1,236	18,046	0.82
Jan 1,273 18,996 14,898 (117) 1,390 18,120 0.82 Mar 1,451 18,797 14,707 (191) 1,461 18,218 0.81 Mar 1,451 18,320 14,410 (297) 1,748 18,051 0.80 Apr 1,421 18,158 13,951 (459) 1,880 18,460 0.76 Jul 1,793 18,079 13,927 (62) 1,651 18,553 0.75 Jul 1,590 18,137 13,927 (62) 1,651 18,553 0.75 Sep 1,882 18,434 14,699 556 1,326 18,077 0.81 Oct 1,774 18,553 1,571 1,577 217 1,517 18,920 0.79 Dec 1,661 19,261 15,549 142 1,532 18,943 0.84 Mar 2,128 20,803 16,178 288 1,8441 19,097 0.84		Dec	1,366	19,338	15,015	150	1,216	17,749	0.85
Feb 1,270 18,797 14,707 (191) 1,461 18,218 0.81 Mar 1,451 18,320 14,410 (297) 1,748 18,051 0.80 Mar 1,451 18,153 13,951 (459) 1,880 18,460 0.76 May 1,502 18,162 13,984 33 1,469 18,462 0.76 Jul 1,590 18,137 13,927 (62) 1,651 18,753 0.75 Aug 1,860 18,341 14,199 556 1,326 18,077 0.81 Oct 1,774 18,553 14,691 (8) 1,782 18,926 0.79 Nov 1,786 18,966 14,904 213 1,572 18,926 0.79 Jan 1,734 19,721 15,573 16,37 18,872 0.83 Jan 1,734 20,125 15,890 142 1,532 18,943 0.84 Mar 2,128 </td <td></td> <td>Jan</td> <td>1,273</td> <td>18,996</td> <td>14,898</td> <td>(117)</td> <td>1,390</td> <td>18,120</td> <td>0.82</td>		Jan	1,273	18,996	14,898	(117)	1,390	18,120	0.82
Mar 1,451 18,320 14,410 (297) 1,748 18,051 0.80 Apr 1,421 18,158 13,951 (459) 1,880 18,460 0.76 Jun 1,793 18,079 13,984 33 1,469 18,453 0.76 Jul 1,590 18,137 13,927 (62) 1,651 18,553 0.75 Sep 1,882 18,434 14,699 556 1,326 18,077 0.81 Oct 1,774 18,553 14,691 (8) 1,782 18,977 0.81 Oct 1,774 18,553 14,691 (8) 1,782 18,977 0.81 Jan 1,734 19,721 15,747 217 1,517 18,843 0.84 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,744 21,126 15,981 (197) 1,941 19,035 0.85 Jun <td></td> <td>Feb</td> <td>1.270</td> <td>18,797</td> <td>14.707</td> <td>(191)</td> <td>1.461</td> <td>18.218</td> <td>0.81</td>		Feb	1.270	18,797	14.707	(191)	1.461	18.218	0.81
Apr May 1,421 18,158 13,951 (459) 1,880 18,460 0.76 Jun 1,793 18,079 13,984 33 1,469 18,462 0.76 Jul 1,590 18,137 13,927 (62) 1,651 18,553 0.75 Aug 1,860 18,341 14,143 216 1,643 18,441 0.77 Sep 1,882 18,434 14,691 56 1,325 18,976 0.79 Nov 1,774 18,553 14,691 (8) 1,772 18,926 0.79 Nov 1,786 18,966 14,904 213 1,572 18,842 0.83 Jan 1,734 19,721 15,531 626 1,035 18,745 0.83 Jun 1,842 20,803 16,178 288 18,440 19,035 0.85 Jun 1,841 21,126 15,531 (269 2,674 20,302 0.77 Jun <td></td> <td>Mar</td> <td>1.451</td> <td>18,320</td> <td>14,410</td> <td>(297)</td> <td>1.748</td> <td>18.051</td> <td>0.80</td>		Mar	1.451	18,320	14,410	(297)	1.748	18.051	0.80
May 1,522 18,162 13,984 33 1,459 13,425 0.76 Jun 1,793 18,079 13,984 5 1,788 18,475 0.76 Jun 1,793 18,079 13,984 5 1,788 18,475 0.76 Aug 1,860 18,341 14,143 216 1,643 18,441 0.77 Sep 1,882 18,434 14,699 556 1,326 18,077 0.81 Nov 1,774 18,553 14,691 (8) 1,782 18,926 0.79 Dec 1,661 19,261 15,531 626 1,035 18,745 0.83 Jan 1,734 19,721 15,747 217 1,517 18,826 0.79 Dec 1,674 20,125 15,890 142 1,532 18,943 0.84 Mar 2,172 1,573 (139) 2,120 20,633 0.75 Jul 1,609 <		Apr	1 421	18 158	13,951	(459)	1,880	18 460	0.76
2005 Jun 1,753 18,079 13,988 5 1,788 18,175 0.76 Jul 1,590 18,137 13,927 (62) 1,651 18,553 0.75 Aug 1,860 18,341 14,143 216 1,643 18,414 0.77 Sep 1,882 18,434 14,691 (8) 1,782 18,500 0.79 Dec 1,661 19,261 15,531 626 1,035 18,745 0.83 Jan 1,734 19,721 15,747 217 1,517 18,826 0.79 Dec 1,661 19,261 15,531 626 1,035 18,745 0.83 Jan 1,734 19,721 15,774 217 1,517 18,892 0.84 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,744 21,263 16,566 33 1,577 20,633 0.75		May	1,502	18 162	13,984	33	1 469	18 462	0.76
2005 Juli 1,150 18,137 13,927 (62) 1,651 18,553 0.75 Aug 1,860 18,341 14,143 216 1,643 18,441 0.77 Sep 1,882 18,434 14,699 556 1,326 18,077 0.81 Oct 1,774 18,553 14,691 (8) 1,782 18,900 0.79 Nov 1,764 19,261 15,531 626 1,035 18,745 0.83 Jan 1,774 19,721 15,747 217 1,517 18,872 0.83 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,744 21,126 15,981 (197) 1,941 19,097 0.84 May 2,405 22,030 15,711 (269) 2,674 20,302 0.75 Jun 1,981 22,237 15,606 33 1,577 20,658 0.75 <tr< td=""><td>0005</td><td>Jun</td><td>1 793</td><td>18,079</td><td>13 988</td><td>5</td><td>1 788</td><td>18 475</td><td>0.76</td></tr<>	0005	Jun	1 793	18,079	13 988	5	1 788	18 475	0.76
Aug 1,860 18,341 14,143 216 1,633 18,441 0.77 Sep 1,882 18,434 14,699 556 1,326 18,077 0.81 Oct 1,774 18,553 14,691 (8) 1,782 18,077 0.81 Nov 1,786 18,966 14,904 213 1,572 18,926 0.79 Dec 1,661 19,261 15,531 626 1,035 18,745 0.83 Jan 1,734 19,721 15,747 217 1,517 18,872 0.83 Apr 1,744 21,126 15,981 (197) 1,941 19,097 0.84 May 2,405 22,030 15,711 (269) 2,674 20,302 0.77 Jun 1,981 22,218 15,573 (139) 2,120 20,633 0.75 Jun 1,981 22,237 15,606 33 1,577 20,559 0.76 Aug	2005	Jul	1 590	18 137	13 927	(62)	1,700	18 553	0.75
Nag 1,882 18,834 14,699 215 1,836 18,877 0.81 Oct 1,774 18,553 14,691 (8) 1,782 18,590 0.79 Dec 1,661 19,261 15,531 626 1,035 18,745 0.83 Jan 1,734 19,721 15,747 217 1,517 18,872 0.83 Apr 1,744 20,125 15,890 142 1,532 18,943 0.84 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,744 21,126 15,981 (197) 1,941 19,097 0.84 May 2,405 22,030 15,711 (269) 2,674 20,302 0.77 Jul 1,609 22,237 15,606 33 1,577 20,653 0.76 Aug 2,169 22,547 16,002 396 1,773 20,688 0.77 Sep		Διια	1,860	18 3/1	14 143	216	1 643	18 441	0.73
Oct 1,774 18,553 14,691 17,82 18,520 0.79 Nov 1,786 18,966 14,904 213 1,572 18,926 0.79 Dec 1,661 19,261 15,531 626 1,035 18,745 0.83 Jan 1,734 19,721 15,747 217 15,872 18,843 0.84 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,742 21,216 15,981 (197) 1,941 19,097 0.84 May 2,405 22,030 15,711 (269) 2,674 20,302 0.77 Jun 1,981 22,217 15,606 33 1,577 20,683 0.75 Jul 1,609 22,237 15,606 33 1,577 20,688 0.80 Nov 1,713 22,510 16,654 68 1,645 20,761 0.80 Dec 1,599		Son	1,882	18 /3/	14,140	556	1 326	18 077	0.81
Out 1,774 10,333 14,991 (3) 1,762 18,392 0.79 Dec 1,661 19,261 15,531 626 1,035 18,745 0.83 Jan 1,734 19,721 15,747 217 1,517 18,872 0.83 Feb 1,674 20,125 15,890 142 1,532 18,943 0.84 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,744 21,223 15,981 (197) 1,941 19,097 0.84 May 2,405 22,030 15,711 (269) 2,674 20,0302 0.77 Jul 1,609 22,237 15,606 33 1,577 20,683 0.77 Sep 1,967 22,632 16,317 316 1,651 21,014 0.78 Oct 1,724 22,583 16,586 268 1,456 20,688 0.80 Dec		Oct	1,002	19 552	14,099	(9)	1,320	18,077	0.01
Nov 17,86 16,904 14,904 213 1,322 16,926 0.79 Jan 1,734 19,261 15,531 626 1,035 18,745 0.83 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,744 20,125 15,890 142 1,532 18,943 0.84 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Jun 1,981 22,203 15,711 (269) 2,674 20,032 0.77 Jun 1,969 22,237 15,606 33 1,577 20,688 0.77 Sep 1,967 22,632 16,317 316 1,651 21,014 0.78 Oct 1,724 22,583 16,586 268 1,645 20,668 0.77 Sep 1,609 22,324 16,367 (280) 1,889 21,705 0.75 Feb		Nov	1,774	10,000	14,091	(0)	1,702	10,090	0.79
Dec 1,061 19,261 15,331 020 1,033 16,743 0.83 Jan 1,734 19,721 15,747 217 1,517 18,872 0.83 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,744 21,126 15,981 (197) 1,941 19,097 0.84 May 2,405 22,030 15,711 (269) 2,674 20,032 0.75 Jul 1,609 22,237 15,606 33 1,577 20,638 0.77 Aug 2,169 22,547 16,002 396 1,773 20,688 0.77 Sep 1,967 22,632 16,317 316 1,651 21,014 0.78 Oct 1,724 22,583 16,586 268 1,456 20,688 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan		Dee	1,700	10,900	14,904	213	1,372	10,920	0.79
Jain 1,734 19,721 15,747 217 1,532 18,943 0.83 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,744 21,126 15,981 (197) 1,941 19,097 0.84 May 2,405 22,030 15,711 (269) 2,674 20,302 0.77 Jul 1,609 22,237 15,606 33 1,577 20,688 0.77 Sep 1,967 22,632 16,317 316 1,651 21,014 0.78 Oct 1,724 22,583 16,586 268 1,456 20,688 0.80 Nov 1,713 22,517 16,664 (7) 1,606 21,333 0.78 Jan 1,609 22,433 16,586 268 1,456 20,688 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan		Dec	1,001	19,201	15,531	020	1,035	10,745	0.83
Peb 1,6/4 20,125 15,890 142 1,322 18,943 0.84 Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,744 21,126 15,981 (197) 1,941 19,097 0.84 May 2,405 22,030 15,711 (269) 2,674 20,302 0.77 Jun 1,961 22,237 15,606 33 1,577 20,659 0.76 Aug 2,169 22,237 16,002 396 1,773 20,688 0.77 Sep 1,967 22,632 16,317 316 1,651 21,014 0.78 Oct 1,724 22,583 16,586 268 1,456 20,688 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan 1,609 22,376 15,936 (430) 1,857 22,029 0.72 Mar		Jan	1,734	19,721	15,747	217	1,517	10,072	0.83
Mar 2,128 20,803 16,178 288 1,840 19,035 0.85 Apr 1,744 21,126 15,981 (197) 1,941 19,097 0.84 May 2,405 22,030 15,711 (269) 2,674 20,032 0.77 Jun 1,981 22,237 15,606 33 1,577 20,559 0.76 Aug 2,169 22,547 16,002 396 1,773 20,688 0.77 Sep 1,967 22,632 16,586 268 1,456 20,688 0.80 Nov 1,713 22,510 16,654 68 1,645 20,761 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Mar 1,609 22,324 16,337 601 1,167 21,356 0.77 Apr 1,633 21,063 16,074 (207) 2,070 0.78 Jun 1,768		Feb	1,674	20,125	15,890	142	1,532	18,943	0.84
Apr 1,744 21,126 15,981 (197) 1,941 19,097 0.84 May 2,405 22,030 15,711 (269) 2,674 20,302 0.77 Jun 1,981 22,218 15,573 (139) 2,120 20,633 0.75 Aug 2,169 22,237 15,606 33 1,577 20,559 0.76 Aug 2,169 22,547 16,002 396 1,773 20,688 0.77 Sep 1,967 22,632 16,317 316 1,651 21,014 0.78 Oct 1,724 22,583 16,586 268 1,456 20,688 0.80 Nov 1,713 22,510 16,654 68 1,645 20,761 0.80 Jan 1,609 22,324 16,6367 (280) 1,889 21,705 0.75 Mar 1,768 21,716 16,537 601 1,167 21,336 0.77 Apr <td></td> <td>Mar</td> <td>2,128</td> <td>20,803</td> <td>16,178</td> <td>288</td> <td>1,840</td> <td>19,035</td> <td>0.85</td>		Mar	2,128	20,803	16,178	288	1,840	19,035	0.85
May 2,405 22,030 15,711 (269) 2,674 20,302 0.77 Jun 1,981 22,218 15,573 (139) 2,120 20,633 0.75 Jul 1,609 22,237 15,606 33 1,577 20,559 0.76 Aug 2,169 22,247 16,002 396 1,773 20,688 0.77 Sep 1,967 22,632 16,317 316 1,651 21,014 0.78 Oct 1,724 22,510 16,654 68 1,645 20,761 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan 1,609 22,324 16,367 (280) 1,889 21,705 0.75 Feb 1,426 22,076 15,936 (430) 1,857 22,029 0.72 Mar 1,768 21,716 16,537 601 1,167 21,305 0.76 Jul <td></td> <td>Apr</td> <td>1,744</td> <td>21,126</td> <td>15,981</td> <td>(197)</td> <td>1,941</td> <td>19,097</td> <td>0.84</td>		Apr	1,744	21,126	15,981	(197)	1,941	19,097	0.84
Jun 1,981 22,218 15,573 (139) 2,120 20,633 0.75 Aug 2,169 22,237 15,606 33 1,577 20,559 0.76 Aug 2,169 22,547 16,002 396 1,773 20,688 0.77 Oct 1,724 22,583 16,586 268 1,456 20,688 0.80 Nov 1,713 22,510 16,654 68 1,645 20,761 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan 1,609 22,324 16,637 601 1,167 21,335 0.75 Feb 1,426 22,076 15,936 (430) 1,857 22,029 0.72 Mar 1,768 21,716 16,537 601 1,167 21,305 0.76 May 1,863 21,063 16,774 (207) 2,070 20,700 0.78 Jul		May	2,405	22,030	15,711	(269)	2,674	20,302	0.77
Jul 1,609 22,237 15,606 33 1,577 20,559 0.76 Aug 2,169 22,547 16,002 396 1,773 20,688 0.77 Sep 1,967 22,632 16,317 316 1,651 21,014 0.78 Oct 1,724 22,583 16,586 268 1,456 20,688 0.80 Nov 1,713 22,510 16,654 68 1,645 20,761 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan 1,609 22,324 16,646 (7) 1,606 21,075 0.75 Feb 1,426 22,076 15,936 (430) 1,889 21,705 0.75 Mar 1,768 21,716 16,537 601 1,167 21,355 0.76 Jun 1,942 21,023 16,74 (207) 2,070 0.700 0.78 Jui	2006	Jun	1,981	22,218	15,573	(139)	2,120	20,633	0.75
Aug 22,169 22,547 16,002 396 1,773 20,688 0.77 Sep 1,967 22,632 16,317 316 1,651 21,014 0.78 Oct 1,724 22,583 16,586 268 1,456 20,688 0.80 Nov 1,713 22,510 16,654 68 1,645 20,761 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan 1,609 22,324 16,367 (280) 1,889 21,705 0.75 Feb 1,426 22,076 15,936 (430) 1,857 22,029 0.72 Mar 1,768 21,716 16,377 601 1,167 21,356 0.77 Mar 1,863 21,063 16,074 (207) 2,070 20,700 0.78 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul <td></td> <td>Jul</td> <td>1,609</td> <td>22,237</td> <td>15,606</td> <td>33</td> <td>1,577</td> <td>20,559</td> <td>0.76</td>		Jul	1,609	22,237	15,606	33	1,577	20,559	0.76
Sep 1,967 22,632 16,317 316 1,651 21,014 0.78 Oct 1,724 22,583 16,586 268 1,456 20,688 0.80 Nov 1,713 22,510 16,654 68 1,645 20,761 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan 1,609 22,324 16,367 (280) 1,889 21,705 0.75 Feb 1,426 22,076 15,936 (430) 1,857 22,029 0.72 Mar 1,768 21,716 16,537 601 1,167 21,356 0.77 Apr 1,633 21,063 16,074 (207) 2,070 20,700 0.78 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul 1,611 21,025 16,270 (475) 2,086 20,361 0.80 Aug <td></td> <td>Aug</td> <td>2,169</td> <td>22,547</td> <td>16,002</td> <td>396</td> <td>1,773</td> <td>20,688</td> <td>0.77</td>		Aug	2,169	22,547	16,002	396	1,773	20,688	0.77
Oct 1,724 22,583 16,586 268 1,456 20,688 0.80 Nov 1,713 22,510 16,654 68 1,645 20,761 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan 1,609 22,324 16,367 (280) 1,889 21,705 0.75 Feb 1,426 22,076 15,936 (430) 1,857 22,029 0.72 Mar 1,768 21,716 16,537 601 1,167 21,305 0.76 Apr 1,633 21,063 16,074 (207) 2,070 20,700 0.78 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul 1,611 21,025 16,270 (475) 2,086 20,361 0.80 Aug 2,126 20,981 16,651 291 1,835 20,423 0.81 Sep <td></td> <td>Sep</td> <td>1,967</td> <td>22,632</td> <td>16,317</td> <td>316</td> <td>1,651</td> <td>21,014</td> <td>0.78</td>		Sep	1,967	22,632	16,317	316	1,651	21,014	0.78
Nov 1,713 22,510 16,654 68 1,645 20,761 0.80 Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan 1,609 22,324 16,367 (280) 1,889 21,705 0.75 Feb 1,426 22,076 15,936 (430) 1,857 22,029 0.72 Mar 1,768 21,716 16,537 601 1,167 21,356 0.77 Apr 1,633 21,604 16,280 (257) 1,890 21,305 0.76 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul 1,611 21,025 16,270 (475) 2,086 20,361 0.80 Aug 2,126 20,981 16,561 291 1,835 20,423 0.81 Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct<		Oct	1,724	22,583	16,586	268	1,456	20,688	0.80
Dec 1,599 22,449 16,646 (7) 1,606 21,333 0.78 Jan 1,609 22,324 16,367 (280) 1,889 21,705 0.75 Feb 1,426 22,076 15,936 (430) 1,857 22,029 0.72 Mar 1,768 21,716 16,537 601 1,167 21,305 0.76 Apr 1,633 21,063 16,074 (207) 2,070 20,700 0.78 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul 1,611 21,025 16,270 (475) 2,086 20,361 0.80 Aug 2,126 20,981 16,561 291 1,835 20,423 0.81 Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct 1,914 20,797 16,730 333 1,581 20,653 0.84 Nov		Nov	1,713	22,510	16,654	68	1,645	20,761	0.80
Jan 1,609 22,324 16,367 (280) 1,889 21,705 0.75 Feb 1,426 22,076 15,936 (430) 1,857 22,029 0.72 Mar 1,768 21,716 16,537 601 1,167 21,356 0.77 Apr 1,633 21,604 16,280 (257) 1,890 21,305 0.76 May 1,863 21,063 16,074 (207) 2,070 20,700 0.78 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul 1,611 21,025 16,270 (475) 2,086 20,361 0.80 Aug 2,126 20,981 16,561 291 1,835 20,423 0.81 Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct 1,914 20,797 16,730 333 1,581 20,653 0.81 N		Dec	1,599	22,449	16,646	(7)	1,606	21,333	0.78
Feb 1,426 22,076 15,936 (430) 1,857 22,029 0.72 Mar 1,768 21,716 16,537 601 1,167 21,356 0.77 Apr 1,633 21,604 16,280 (257) 1,890 21,305 0.76 May 1,863 21,063 16,074 (207) 2,070 20,700 0.78 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul 1,611 21,025 16,270 (475) 2,086 20,361 0.80 Aug 2,126 20,981 16,561 291 1,835 20,423 0.81 Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct 1,914 20,797 16,730 333 1,581 20,653 0.81 Nov 1,611 20,695 16,382 (348) 1,959 20,966 0.78 D		Jan	1,609	22,324	16,367	(280)	1,889	21,705	0.75
Mar 1,768 21,716 16,537 601 1,167 21,356 0.77 Apr 1,633 21,004 16,280 (257) 1,890 21,305 0.76 May 1,863 21,063 16,074 (207) 2,070 20,700 0.78 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul 1,611 21,025 16,270 (475) 2,086 20,361 0.80 Aug 2,126 20,981 16,561 291 1,835 20,423 0.81 Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct 1,914 20,797 16,730 333 1,581 20,653 0.81 Nov 1,611 20,695 16,382 (348) 1,959 20,966 0.78 Dec 1,375 20,471 16,816 434 942 20,0302 0.83 Mar<		Feb	1,426	22,076	15,936	(430)	1,857	22,029	0.72
Apr 1,633 21,604 16,280 (257) 1,890 21,305 0.76 May 1,863 21,063 16,074 (207) 2,070 20,700 0.78 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul 1,611 21,025 16,745 671 1,271 19,851 0.84 Aug 2,126 20,981 16,561 291 1,835 20,423 0.81 Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct 1,914 20,797 16,730 333 1,581 20,653 0.81 Nov 1,611 20,695 16,382 (348) 1,959 20,966 0.78 Dec 1,375 20,471 16,816 434 942 20,0302 0.83 Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr<		Mar	1,768	21,716	16,537	601	1,167	21,356	0.77
May 1,863 21,063 16,074 (207) 2,070 20,700 0.78 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul 1,611 21,025 16,270 (475) 2,086 20,361 0.80 Aug 2,126 20,981 16,561 291 1,835 20,423 0.81 Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct 1,914 20,797 16,730 333 1,581 20,6653 0.81 Nov 1,611 20,695 16,382 (348) 1,959 20,966 0.78 Dec 1,375 20,471 16,816 434 942 20,302 0.83 Jan 1,723 20,585 16,897 81 1,642 20,055 0.84 Feb 1,552 20,711 16,610 (287) 1,839 20,037 0.83 Mar </td <td></td> <td>Apr</td> <td>1,633</td> <td>21,604</td> <td>16,280</td> <td>(257)</td> <td>1,890</td> <td>21,305</td> <td>0.76</td>		Apr	1,633	21,604	16,280	(257)	1,890	21,305	0.76
2007 Jun 1,942 21,023 16,745 671 1,271 19,851 0.84 Jul 1,611 21,025 16,270 (475) 2,086 20,361 0.80 Aug 2,126 20,981 16,561 291 1,835 20,423 0.81 Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct 1,914 20,797 16,730 333 1,581 20,663 0.81 Nov 1,611 20,695 16,382 (348) 1,959 20,966 0.78 Dec 1,375 20,471 16,610 (287) 1,839 20,032 0.83 Jan 1,723 20,585 16,897 81 1,642 20,037 0.83 Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76		May	1,863	21,063	16,074	(207)	2,070	20,700	0.78
Jul 1,611 21,025 16,270 (475) 2,086 20,361 0.80 Aug 2,126 20,981 16,561 291 1,835 20,423 0.81 Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct 1,914 20,797 16,730 333 1,581 20,663 0.81 Nov 1,611 20,695 16,382 (348) 1,959 20,966 0.78 Dec 1,375 20,471 16,816 434 942 20,302 0.83 Jan 1,723 20,585 16,897 81 1,642 20,055 0.84 Feb 1,552 20,711 16,610 (287) 1,839 20,037 0.83 Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76 Jun<	2007	Jun	1,942	21,023	16,745	671	1,271	19,851	0.84
Aug 2,126 20,981 16,561 291 1,835 20,423 0.81 Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct 1,914 20,797 16,730 333 1,581 20,653 0.81 Nov 1,611 20,695 16,382 (348) 1,959 20,966 0.78 Dec 1,375 20,471 16,816 434 942 20,302 0.83 Jan 1,723 20,585 16,897 81 1,642 20,055 0.84 Feb 1,552 20,711 16,610 (287) 1,839 20,037 0.83 Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76 May 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun<	2007	Jul	1,611	21,025	16,270	(475)	2,086	20,361	0.80
Sep 1,593 20,608 16,397 (163) 1,757 20,528 0.80 Oct 1,914 20,797 16,730 333 1,581 20,653 0.81 Nov 1,611 20,695 16,382 (348) 1,959 20,966 0.78 Dec 1,375 20,471 16,816 434 942 20,302 0.83 Jan 1,723 20,585 16,897 81 1,642 20,055 0.84 Feb 1,552 20,711 16,610 (287) 1,839 20,037 0.83 Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76 May 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,955 14,719 (537) 2,053 21,581 0.68 Ju		Aug	2,126	20,981	16,561	291	1,835	20,423	0.81
Oct 1,914 20,797 16,730 333 1,581 20,653 0.81 Nov 1,611 20,695 16,382 (348) 1,959 20,966 0.78 Dec 1,375 20,471 16,816 434 942 20,302 0.83 Jan 1,723 20,585 16,897 81 1,642 20,055 0.84 Feb 1,552 20,711 16,610 (287) 1,839 20,037 0.83 Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76 May 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,955 14,719 (537) 2,053 21,581 0.68 Jul 1,707 19,651 14,679 (39) 1,747 21,242 0.69 NOT		Sep	1,593	20,608	16,397	(163)	1,757	20,528	0.80
Nov 1,611 20,695 16,382 (348) 1,959 20,966 0.78 Dec 1,375 20,471 16,816 434 942 20,302 0.83 Jan 1,723 20,585 16,897 81 1,642 20,055 0.84 Feb 1,552 20,711 16,610 (287) 1,839 20,037 0.83 Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76 May 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,555 14,719 (537) 2,053 21,581 0.68 Jul 1,707 19,651 14,679 (39) 1,747 21,242 0.69 Aug 1,786 19,312 14,608 (72) 1,858 21,265 0.69 NO		Oct	1,914	20,797	16,730	333	1,581	20,653	0.81
Dec 1,375 20,471 16,816 434 942 20,302 0.83 Jan 1,723 20,585 16,897 81 1,642 20,055 0.84 Feb 1,552 20,711 16,610 (287) 1,839 20,037 0.83 Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76 May 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,980 15,255 (506) 2,023 21,581 0.68 Jul 1,707 19,651 14,679 (39) 1,747 21,242 0.69 A		Nov	1,611	20,695	16,382	(348)	1,959	20,966	0.78
Jan 1,723 20,585 16,897 81 1,642 20,055 0.84 Feb 1,552 20,711 16,610 (287) 1,839 20,037 0.83 Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76 May 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,555 14,719 (537) 2,053 21,581 0.68 Jul 1,707 19,651 14,679 (39) 1,747 21,242 0.69 Aug 1,786 19,312 14,608 (72) 1,858 21,265 0.69 NOTE: The information in this chart is calculated from reported production and inventory numbers by BTA members This represents more than 95% of the U.S. and Canadian market for used creation 15% of the U.S. and Canadian market for used creation		Dec	1,375	20,471	16,816	434	942	20,302	0.83
Feb 1,552 20,711 16,610 (287) 1,839 20,037 0.83 2008 Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76 May 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,555 14,719 (537) 2,053 21,581 0.68 Jul 1,707 19,651 14,679 (39) 1,747 21,242 0.69 Aug 1,786 19,312 14,608 (72) 1,858 21,265 0.69		Jan	1,723	20,585	16,897	81	1,642	20,055	0.84
Mar 1,416 20,358 15,918 (692) 2,107 20,978 0.76 Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76 May 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,555 14,719 (537) 2,053 21,581 0.68 Jul 1,707 19,651 14,679 (39) 1,747 21,242 0.69 Aug 1,786 19,312 14,608 (72) 1,858 21,265 0.69		Feb	1,552	20,711	16,610	(287)	1,839	20,037	0.83
Apr 1,600 20,326 15,762 (157) 1,757 20,844 0.76 May 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,555 14,719 (537) 2,053 21,581 0.68 Jul 1,707 19,651 14,679 (39) 1,747 21,242 0.69 Aug 1,786 19,312 14,608 (72) 1,858 21,265 0.69		Mar	1,416	20,358	15.918	(692)	2,107	20,978	0.76
2008 May 1,517 19,980 15,255 (507) 2,023 20,798 0.73 Jun 1,517 19,980 15,255 (506) 2,023 20,798 0.73 Jun 1,517 19,555 14,719 (537) 2,053 21,581 0.68 Jul 1,707 19,651 14,679 (39) 1,747 21,242 0.69 Aug 1,786 19,312 14,608 (72) 1,858 21,265 0.69		Apr	1,600	20.326	15,762	(157)	1.757	20.844	0.76
Jun 1,517 19,555 14,719 (537) 2,053 21,581 0.68 Jul 1,707 19,651 14,679 (39) 1,747 21,242 0.69 Aug 1,786 19,312 14,608 (72) 1,858 21,265 0.69 NOTE: The information in this chart is calculated from reported production and inventory numbers by BTA members This represents more than 95% of the U.S. and Canadian market for used crossing 14,608 (72) 1,858 21,265 0.69	2008	May	1,517	19,980	15,255	(506)	2,023	20,798	0.73
Jul 1,707 19,651 14,679 (39) 1,747 21,242 0.69 Aug 1,786 19,312 14,608 (72) 1,858 21,242 0.69 NOTE: The information in this chart is calculated from reported production and inventory numbers by This represents more than 95% of the U.S. and Canadian market for wood prostices The second production and inventory numbers by		Jun	1,517	19 555	14 719	(537)	2 053	21 581	0.68
Aug 1,767 19,001 17,079 (037) 17,777 21,242 0.09 Aug 1,786 19,312 14,608 (72) 1,858 21,265 0.69 NOTE: The information in this chart is calculated from reported production and inventory numbers by RTA members This represents more than 95% of the U.S. and Canadian market for used constituents		Jul	1 707	19 651	14 670	(30)	1 747	21 242	0.00
NOTE: The information in this chart is calculated from reported production and inventory numbers by RTA members. This represents more than 95% of the U.S. and Canadian market for wood prosection.		Aug	1 786	19 312	14 608	(72)	1,747	21,242	0.00
NOTE: The information in this chart is calculated from reported production and inventory numbers by		, ug	1,700	10,012	14,000	(12)	1,000	21,200	0.00
		: The in	Tormation in	This chart is calcu	liated from	reported p	roduction a	na inventory nu	mbers by

AAR Class 1 Statistics For 2007

2007 was another superior year for wood tie installations by Class 1 railroads in U.S. track, as these compilation charts illustrate.*

Table 5 reveals the new construction activity by Class 1 roads and Table 6 the ties installed for ongoing maintenance applications. Both categories of railroad activity show modest drops in installations from the peak year of 2006. This is in keeping with observed tie production trends reported in the last several issues of Crossties magazine. Relay wood ties were down across the board. The trend of increasing installation of "maintenance" concrete ties continued in 2007. New construction concrete ties returned to 2005 levels. Approximately 40,000 more composite ties were installed in 2007 than in 2006 (168,061 total reported in 2007).

RTA is ever grateful for the ongoing cooperative relationship with AAR and especially to AAR's Clyde Crimmel for his efforts in preparing these tables found exclusively in Crossties magazine. §

TABLE 5—For Calendar Year 2007 Crossties Laid In Addition Statistics For Class 1 Railroads In The U.S.

	Turatadaaa			
	l reated woo	on (number)		
			New crossties laid in replacement	Switch and
	New Ties	Second-hand	other than wooden	bridge ties laid in
District & Railroad	(10)	(11)	(12)	(13)
Footown District				
	11 960	10	0 176	12 690
Grand Trunk Western (CN)	41,000	19	(c) 170	13,009
Nerfells Couthorn	50 500	0	0	05.041
Norioik Southern	59,592	0	0	25,241
Total Eastern District	101,452	19	176	38,930
Western District				
Burlington Northern Santa Fe	32,118	0	(c) 386,326	39,060
Kansas City Southern	1,520	0	0	184
Soo Line (ĆPR)	0	0	0	0
Union Pacific	93,428	1,575	(c) 122,615	(f) 218,142
Total Western District	127,066	1,575	508,941	257,386
Total United States	228,518	1,594	509,117	296,316

*Source: R-1 Annual Reports to the Surface Transportation Board

(c) Concrete ties. (f) Includes 126 concrete ties which were assigned 65 board feet per tie.

TABLE 6—Crossiles Laid In Replacement Statistics For Class 1 Railroads In The U.S. In 2007										
	Treated wooden crossties laid in replacement (#)		New cross- ties laid in replacement	Track main reporting	intained by g railroad	Crossties	New crosstie replacement avg.		Switch and bridge ties laid in	
	New Ties	Second- Hand Ties	other than wooden (#)	Miles occupied by crossties (a)	Total crossties (b)	per mile (1967)	% renewal to all ties	# laid per mile	addition (board ft.)	
District & Railroad	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Eastern District										
CSX	3,117,975	0	(c) 1,872	30,766	91,928,808	2,988	3.39%	101	7,154,749	
Grand Trunk Corp. (CN)	669,410	0	0	10,199	32,177,845	3,155	2.08%	66	1,040,675	
Norfolk Southern	2,591,316	179,091	0	30,059	92,461,484	3,076	2.80%	86	10,146,730	
Total Eastern District	6,378,701	179,091	1,872	71,024	216,586,137	3,049	2.95%	90	18,342,154	
<u>Western District</u> Burlington Northern Santa Fe	2.579.599	0	(c) 127.654	39.832	123.280.040	3.095	2.20%	68	2.786.730	
Kansas City Southern	477,751	0	(c) 149	3,904	12,488,896	3,199	3.83%	122	197,138	
Soo Line (ĆPR)	290,443	0	0	2,544	7,680,336	3,019	3.78%	114	629,159	
Union Pacific	3,391,451	913	(d) 657,813	43,316	129,081,680	2,980	3.14%	93	(e) 6,339,358	
Total Western District	6,739,244	913	785,616	89,596	272,530,952	3,042	2.76%	84	9,952,385	
Total United States	13,117,945	180,004	787,488	160,620	489,099,089	3,045	2.84%	87	28,294,539	

Note: 249,597 second-hand, other-than-wooden ties, not shown on this page, were laid in replacement in 2007.

*Source: R-1 Annual Reports to the Surface Transportation Board

(a) Total mileage operated at the end of year, excluding mileage under trackage rights. (b) Based on crossties per mile of track in 1967, the last year reported. (c) Concrete ties. (d) 489,752 concrete ties, and 168,061 non-wooden-non-concrete ties. (e) Includes 504 concrete or steel switch ties, all assigned 65 board feet per tie.