# Form **990-PF**Department of the Treasury

#### **Return of Private Foundation**

or Section 4947(a)(1) Trust Treated as Private Foundation

Do not enter social security numbers on this form as it may be made public.
 Information about Form 990-PF and its separate instructions is at www.irs.gov/form990pf.

OMB No. 1545-0052 **2016**Open to Public Inspection

For calendar year 2016 or tax year beginning , and ending Name of foundation A Employer identification number Robert W. Woodruff Foundation, Inc. 58-1695425 Number and street (or P.O. box number if mail is not delivered to street address) Room/suite **B** Telephone number 3540 191 Peachtree Street, NE 4045226755 City or town, state or province, country, and ZIP or foreign postal code C If exemption application is pending, check here 30303-1799 Atlanta, GA G Check all that apply: Initial return Initial return of a former public charity **D** 1. Foreign organizations, check here Final return Amended return 2. Foreign organizations meeting the 85% test, check here and attach computation Address change Name change X Section 501(c)(3) exempt private foundation **H** Check type of organization: E If private foundation status was terminated Section 4947(a)(1) nonexempt charitable trust Other taxable private foundation under section 507(b)(1)(A), check here Accrual I Fair market value of all assets at end of year | J Accounting method: F If the foundation is in a 60-month termination (from Part II, col. (c), line 16) Other (specify) under section 507(b)(1)(B), check here ... 3015436466 . (Part I, column (d) must be on cash basis.) ▶\$ Part I Analysis of Revenue and Expenses (d) Disbursements (a) Revenue and (b) Net investment (c) Adjusted net (The total of amounts in columns (b), (c), and (d) may not necessarily equal the amounts in column (a).) for charitable purposes (cash basis only) expenses per books income income N/A Contributions, gifts, grants, etc., received ...... Check X if the foundation is not required to attach Sch. B Interest on savings and temporary cash investments 387476. 387476. Statement 94872296 94872296. Statement 4 Dividends and interest from securities **5a** Gross rents **b** Net rental income or (loss) -6613768. 6a Net gain or (loss) from sale of assets not on line 10. **b** Gross sales price for all assets on line 6a ..... 68121070. Capital gain net income (from Part IV, line 2) 0. Net short-term capital gain Income modifications ... 10a Gross sales less returns and allowances **b** Less: Cost of goods sold ... c Gross profit or (loss) 0. Statement 3 11 Other income 88646005. 95259772. Total. Add lines 1 through 11 155979. 438564. 282585. 13 Compensation of officers, directors, trustees, etc. 14 Other employee salaries and wages ..... 312275. 102876. 209399. 15 Pension plans, employee benefits ..... 182750. 56652. 126098. 6455. 0. 6455. Expenses 16a Legal fees Stmt 4 24252. 7518. **b** Accounting fees Stmt 5 16734. 242084 8122. 233962. c Other professional fees Stmt 6 17 Interest Taxes Stmt 7 935000. 0. 0. 18 Depreciation and depletion 22816. 7073. 19 72097. 104488. 32391. 20 Occupancy 29558. 4888. 24670. 21 Travel, conferences, and meetings and 22 Printing and publications ...... 739. 229. 510. 93601. 19553. 74048. 23 Other expenses Stmt 8 Operating 24 Total operating and administrative 2392582 820718. 621121. expenses. Add lines 13 through 23 141941856 141941856. 25 Contributions, gifts, grants paid 26 Total expenses and disbursements. 144334438 621121. 142762574. Add lines 24 and 25 27 Subtract line 26 from line 12: -55688433 **a** Excess of revenue over expenses and disbursements 94638651 **b Net investment income** (if negative, enter -0-) N/A C Adjusted net income (if negative, enter -0-)

623501 11-23-16 LHA For Paperwork Reduction Act Notice, see instructions.

Р	art	Balance Sheets Attached schedules and amounts in the description column should be for end-of-year amounts only.	Beginning of year	End of	·
	art	column should be for end-of-year amounts only.	(a) Book Value	( <b>b)</b> Book Value	(c) Fair Market Value
	1	Cash - non-interest-bearing	4832.	10363.	10363.
	2	Savings and temporary cash investments	44509750.	36001804.	36019204.
	3	Accounts receivable ►			
		Less: allowance for doubtful accounts			
	4	Pledges receivable ►			
		Less: allowance for doubtful accounts			
	5	Grants receivable			
	6	Receivables due from officers, directors, trustees, and other			
		disqualified persons			
	7	Other notes and loans receivable			
		Less: allowance for doubtful accounts			
ι	8	Inventories for sale or use			
Assets	9	Prepaid expenses and deferred charges			
Ą	10a	Investments - U.S. and state government obligations			
	Ь	Investments - corporate stock Stmt 9	401234915.	399962405.	2927882263.
		Investments - corporate bonds			
		Investments - land, buildings, and equipment: basis  Less: accumulated depreciation			
	12	Investments - mortgage loans			
	13	Investments - other Stmt 10	19440511.	20523965.	20986589.
		Land, buildings, and equipment: basis ► 22042895.			
		Less: accumulated depreciation 618542.	21447169.	21424353.	30310374.
	15	Other assets (describe ► Statement 11)	153213.	176273.	227673.
		Total assets (to be completed by all filers - see the			
		instructions. Also, see page 1, item I)	486790390.	478099163.	3015436466.
_	17	Accounts payable and accrued expenses			
	18	Grants payable			
s	19	Deferred revenue			
Liabilities	l	Loans from officers, directors, trustees, and other disqualified persons			
abil	21	Mortgages and other notes payable			
Ë		Other liabilities (describe ► 457 (b) Plan )	9030.	12113.	
		`			
	23	Total liabilities (add lines 17 through 22)	9030.	12113.	
		Foundations that follow SFAS 117, check here			
		and complete lines 24 through 26 and lines 30 and 31.			
Ses	24	Unrestricted	486781360.	478087050.	
au	25	Temporarily restricted			
Bal	26	Permanently restricted			
pu		Foundations that do not follow SFAS 117, check here			
or Fund Balanc		and complete lines 27 through 31.			
	27	Capital stock, trust principal, or current funds			
set	28	Paid-in or capital surplus, or land, bldg., and equipment fund			
As	29				
Net Assets	30	Total net assets or fund balances	486781360.	478087050.	
_					
	31	Total liabilities and net assets/fund balances	486790390.	478099163.	
P	art	Analysis of Changes in Net Assets or Fund Ba	alances		
1	Tota	net assets or fund balances at beginning of year - Part II, column (a), line 3	30		
		st agree with end-of-year figure reported on prior year's return)		1	486781360.
2	Ente	2	-55688433.		
		r increases not included in line 2 (itemize)  Gain on stock	3	46994123.	
		lines 1, 2, and 3			478087050.
		eases not included in line 2 (itemize)		5	0.
		I not accepte or fund belances at and of year (line 4 minus line 5). Part II, ac	lumn (h) line 20		178087050

Part IV Capital Gains	and Losses for Tax on I	nvestmen	t Income						
				acquired day, yr.)	(d) Date sold (mo., day, yr.)				
1a publicly trade	d securities					Vari	lous	Various	
b									
<u>C</u>									
<u>d</u>									
e	(A) Democription allowed	(-) 0		Ц,		(1-)	0-1 (1		
(e) Gross sales price	(f) Depreciation allowed (or allowable)		st or other basis expense of sale		(h) Gain or (loss) (e) plus (f) minus (g)				
a 68121070.			7473483	8.				-6613768.	
b									
c d									
e									
	g gain in column (h) and owned by	the foundation	on 12/31/69			(I) Gains (	Col. (h) gain	minus	
(i) Adjusted basis (k) Excess of col. (i) col.			ol. (k), but	not less tha	n -0-) <b>or</b>				
(i) F.M.V. as of 12/31/69	as of 12/31/69		col. (j), if any			Losses	s (from col.	(h))	
a								-6613768.	
b									
С									
d									
е									
2 Capital gain net income or (net ca	pital loss) If gain, also ente	r in Part I, line )- in Part I, line	7 7	}	2			-6613768.	
3 Net short-term capital gain or (los									
If gain, also enter in Part I, line 8,		iiu (0).		J					
If (loss), enter -0- in Part I, line 8				<u>ال.</u>	3		N/A	•	
	nder Section 4940(e) for					ncome			
(For optional use by domestic private	foundations subject to the section	4940(a) tax on	net investment in	icome	.)				
If section 4940(d)(2) applies, leave the	nis part blank.								
,,,,,	•			.: ~ 40				Yes X No	
Was the foundation liable for the sect If "Yes," the foundation does not qual		, ,		100?				. Yes A NO	
1 Enter the appropriate amount in 6				ntries	-				
(a)	(b)			(c)	-		Distril	(d) oution ratio	
Base period years Calendar year (or tax year beginniı	A 41	stributions	Net value of no	nchar	itable-use asse	ts	Distrii (col. (b) div	oution ratio vided by col. (c))	
2015	1419	40072.		28	9945883	8.		.048954	
2014		76318.		29	2102955	7.		.041963	
2013		379876.			2110455			.053363	
2012		01145.			1201407			.047475	
2011	1158	37317.		26	0909913	5.		.044397	
								006450	
2 Total of line 1, column (d)						2		.236152	
3 Average distribution ratio for the				-				0.47020	
the foundation has been in exister	nce if less than 5 years					3		.047230	
4. Enter the metallic of manch witch	I Do t V	U F					1 2	001214076	
4 Enter the net value of noncharitab	le-use assets for 2016 from Part X,	line 5				4	- 4	991214076.	
F. Multiply line 4 by line 2						5		141275041.	
5 Multiply line 4 by line 3								1412/3041.	
6 Enter 1% of net investment incom	ne (1% of Part I line 27h)					6		946387.	
Citter 1/6 of thet investment incom	ie (1/0 011 ait i, iiile 2/ b)					├ •		3403076	
7 Add lines 5 and 6						7		142221428.	
						···		<u> </u>	
8 Enter qualifying distributions from						8		142762574.	
If line 8 is equal to or greater than See the Part VI instructions.	line 7, check the box in Part VI, line	e 1b, and comp	olete that part usin	g a 19	% tax rate.				

Pa	art VI Excise Tax Based on Investment Income (Section 4940(a), 4940(b), 4940	(e), or 4	948 -	see ins	stru	ctio	ns)
1a	a Exempt operating foundations described in section 4940(d)(2), check here and enter "N/A" on line 1.	)					
	Date of ruling or determination letter: (attach copy of letter if necessary-see instructions)						
b	<b>b</b> Domestic foundations that meet the section 4940(e) requirements in Part V, check here <b>X</b> and enter 1%	}	1		9	463	87.
	of Part I, line 27b						
C	c All other domestic foundations enter 2% of line 27b. Exempt foreign organizations enter 4% of Part I, line 12, col. (b).	J					
2	Tax under section 511 (domestic section 4947(a)(1) trusts and taxable foundations only. Others enter -0-)		2				0.
3	Add lines 1 and 2		3		9	463	87.
4	Subtitle A (income) tax (domestic section 4947(a)(1) trusts and taxable foundations only. Others enter -0-)		4				0.
5	Tax based on investment income. Subtract line 4 from line 3. If zero or less, enter -0-		5		9	463	87.
6	Credits/Payments:						
а	a 2016 estimated tax payments and 2015 overpayment credited to 2016 6a 95	5788.					
b	b Exempt foreign organizations - tax withheld at source 6b						
C	c Tax paid with application for extension of time to file (Form 8868)						
d	d Backup withholding erroneously withheld 6d 6d						
	Total credits and payments. Add lines 6a through 6d		7		9	557	88.
	—		8				
9	Tax due. If the total of lines 5 and 8 is more than line 7, enter amount owed		9				
10	Overpayment. If line 7 is more than the total of lines 5 and 8, enter the amount overpaid		10			94	01.
	Enter the amount of line 10 to be: Credited to 2017 estimated tax   9401. Reference to the content of the conte	ınded ►	11				0.
Pa	art VII-A Statements Regarding Activities						
1a	a During the tax year, did the foundation attempt to influence any national, state, or local legislation or did it participate o					Yes	
	any political campaign?				1a		X
b	<b>b</b> Did it spend more than \$100 during the year (either directly or indirectly) for political purposes (see instructions for the	e definition	)?		1b		Х
	If the answer is "Yes" to 1a or 1b, attach a detailed description of the activities and copies of any material	als publish	ned or				
	distributed by the foundation in connection with the activities.						
	c Did the foundation file Form 1120-POL for this year?				1c		_X_
d	<b>d</b> Enter the amount (if any) of tax on political expenditures (section 4955) imposed during the year:						
	(1) On the foundation. ► \$ (2) On foundation managers. ► \$	0.					
е	e Enter the reimbursement (if any) paid by the foundation during the year for political expenditure tax imposed on found	ation					
	managers. ► \$0 .						
2	Has the foundation engaged in any activities that have not previously been reported to the IRS?				2		_X_
	If "Yes," attach a detailed description of the activities.						
3	Has the foundation made any changes, not previously reported to the IRS, in its governing instrument, articles of income	-					
	bylaws, or other similar instruments? If "Yes," attach a conformed copy of the changes				3		<u> </u>
	a Did the foundation have unrelated business gross income of \$1,000 or more during the year?				4a		X
b	<b>b</b> If "Yes," has it filed a tax return on <b>Form 990-T</b> for this year?				4b		
5	, , , , , , , , , , , , , , , , , , , ,				5		X
	If "Yes," attach the statement required by General Instruction T.						
6	1						
	By language in the governing instrument, or						
	By state legislation that effectively amends the governing instrument so that no mandatory directions that conflict with						
	remain in the governing instrument?				6	X	
7	Did the foundation have at least \$5,000 in assets at any time during the year? If "Yes," complete Part II, col. (c), are	d Part XV			7	X	
8a	a Enter the states to which the foundation reports or with which it is registered (see instructions)						
	GA			[			
b	<b>b</b> If the answer is "Yes" to line 7, has the foundation furnished a copy of Form 990-PF to the Attorney General (or designation)				8b		
of each state as required by General Instruction G? If "No," attach explanation						X	
9	Is the foundation claiming status as a private operating foundation within the meaning of section 4942(j)(3) or 4942(j)						77
	year 2016 or the taxable year beginning in 2016 (see instructions for Part XIV)? If "Yes," complete Part XIV				9		X
10	Did any persons become substantial contributors during the tax year? If "Yes," attach a schedule listing their names and addre	sses			10		X

1 6	Statements negaring Activities (continued)			
			Yes	No
11	At any time during the year, did the foundation, directly or indirectly, own a controlled entity within the meaning of			
	section 512(b)(13)? If "Yes," attach schedule (see instructions)	11		X
12	Did the foundation make a distribution to a donor advised fund over which the foundation or a disqualified person had advisory privileges?			
	If "Yes," attach statement (see instructions)	12		X
13	Did the foundation comply with the public inspection requirements for its annual returns and exemption application?	13	X	
	Website address www.woodruff.org			
14	The books are in care of Erik S. Johnson, Secretary  Telephone no. > 404-52			
	Located at ▶ 191 Peachtree Street NE, Suite 3540, Atlanta, GA ZIP+4 ▶30			99
15	Section 4947(a)(1) nonexempt charitable trusts filing Form 990-PF in lieu of <b>Form 1041 -</b> Check here			
	and enter the amount of tax-exempt interest received or accrued during the year <b>15</b>	N	/A	
16	At any time during calendar year 2016, did the foundation have an interest in or a signature or other authority over a bank,		Yes	
	securities, or other financial account in a foreign country?	16		<u>X</u>
	See the instructions for exceptions and filing requirements for FinCEN Form 114. If "Yes," enter the name of the			
_	foreign country			
Pa	rt VII-B Statements Regarding Activities for Which Form 4720 May Be Required			
	File Form 4720 if any item is checked in the "Yes" column, unless an exception applies.		Yes	No
1a	During the year did the foundation (either directly or indirectly):			
	(1) Engage in the sale or exchange, or leasing of property with a disqualified person?			
	(2) Borrow money from, lend money to, or otherwise extend credit to (or accept it from)			
	a disqualified person? Yes X No			
	(3) Furnish goods, services, or facilities to (or accept them from) a disqualified person?			
	(4) Pay compensation to, or pay or reimburse the expenses of, a disqualified person? X Yes No			
	(5) Transfer any income or assets to a disqualified person (or make any of either available			
	for the benefit or use of a disqualified person)? $\hfill egin{array}{c} \egin{array}{c} \egin{array}{c} \eg$			
	(6) Agree to pay money or property to a government official? (Exception. Check "No"			
	if the foundation agreed to make a grant to or to employ the official for a period after			
	termination of government service, if terminating within 90 days.)			
b	If any answer is "Yes" to 1a(1)-(6), did <b>any</b> of the acts fail to qualify under the exceptions described in Regulations			
	section 53.4941(d)-3 or in a current notice regarding disaster assistance (see instructions)?	1b		<u>X</u>
	Organizations relying on a current notice regarding disaster assistance check here			
C	Did the foundation engage in a prior year in any of the acts described in 1a, other than excepted acts, that were not corrected			
	before the first day of the tax year beginning in 2016?	1c		_X_
2	Taxes on failure to distribute income (section 4942) (does not apply for years the foundation was a private operating foundation			
	defined in section 4942(j)(3) or 4942(j)(5)):			
а	At the end of tax year 2016, did the foundation have any undistributed income (lines 6d and 6e, Part XIII) for tax year(s) beginning			
	before 2016? Yes X No			
	If "Yes," list the years $\blacktriangleright$			
b	Are there any years listed in 2a for which the foundation is <b>not</b> applying the provisions of section 4942(a)(2) (relating to incorrect			
	valuation of assets) to the year's undistributed income? (If applying section 4942(a)(2) to <b>all</b> years listed, answer "No" and attach			
	statement - see instructions.) N/A	2b		
C	If the provisions of section 4942(a)(2) are being applied to <b>any</b> of the years listed in 2a, list the years here.			
	<b>&gt;</b>			
3a	Did the foundation hold more than a 2% direct or indirect interest in any business enterprise at any time			
	during the year? Yes X No			
b	If "Yes," did it have excess business holdings in 2016 as a result of (1) any purchase by the foundation or disqualified persons after			
	May 26, 1969; (2) the lapse of the 5-year period (or longer period approved by the Commissioner under section 4943(c)(7)) to dispose			
	of holdings acquired by gift or bequest; or (3) the lapse of the 10-, 15-, or 20-year first phase holding period? (Use Schedule C,			
	Form 4720, to determine if the foundation had excess business holdings in 2016.) N/A	3b		
	Did the foundation invest during the year any amount in a manner that would jeopardize its charitable purposes?	4a		X
b	Did the foundation make any investment in a prior year (but after December 31, 1969) that could jeopardize its charitable purpose that			
	had not been removed from jeopardy before the first day of the tax year beginning in 2016?	4b		_X_

Part VII-B Statements Regarding Activities for which i	-orm 4/20 May Be F	<b>requirea</b> (contin	ued)		
5a During the year did the foundation pay or incur any amount to:					
(1) Carry on propaganda, or otherwise attempt to influence legislation (section	1 4945(e))?	L Ye	es X No		
(2) Influence the outcome of any specific public election (see section 4955); o	r to carry on, directly or indire				
any voter registration drive?			es X No		
(3) Provide a grant to an individual for travel, study, or other similar purposes	?	L Ye	es X No		
(4) Provide a grant to an organization other than a charitable, etc., organization					
4945(d)(4)(A)? (see instructions)		X Ye	es 🔲 No		
(5) Provide for any purpose other than religious, charitable, scientific, literary,	or educational purposes, or f	or			
the prevention of cruelty to children or animals?		Ye	es X No		
<b>b</b> If any answer is "Yes" to 5a(1)-(5), did <b>any</b> of the transactions fail to qualify und					
section 53.4945 or in a current notice regarding disaster assistance (see instru	ctions)?			5b	Х
Organizations relying on a current notice regarding disaster assistance check h					
c If the answer is "Yes" to question 5a(4), does the foundation claim exemption fr					
expenditure responsibility for the grant?			es 🔲 No		
If "Yes," attach the statement required by Regulations section 53.494					
<b>6a</b> Did the foundation, during the year, receive any funds, directly or indirectly, to	• •				
a personal benefit contract?		Ye	es X No		
<b>b</b> Did the foundation, during the year, pay premiums, directly or indirectly, on a p	ersonal benefit contract?			6b	Х
If "Yes" to 6b, file Form 8870.					
7a At any time during the tax year, was the foundation a party to a prohibited tax s	helter transaction?	☐ Ye	es X No		
<b>b</b> If "Yes," did the foundation receive any proceeds or have any net income attribu	stable to the transaction?		N/A	7b	
Part VIII Information About Officers, Directors, Trust					
Paid Employees, and Contractors	<b>,</b>		•		
1 List all officers, directors, trustees, foundation managers and their	compensation.				
	<b>(b)</b> Title, and average hours per week devoted	(c) Compensation	(d) Contributions to employee benefit plans	<b>(e)</b> Exp	ense
(a) Name and address	nours per week devoted to position	(If not paid, enter -0-)	and deferred compensation	account allowa	, otner inces
TRUSTEES-see attached detail listing	TRUSTEES	,	compensation		
<u> </u>					
	12.00	135000.	7425.		0.
OFFICERS-see attached detail listing	OFFICERS				
<u> </u>					
	46.00	303564.	72897.	14	46.
2 Compensation of five highest-paid employees (other than those inc	luded on line 1) If none	enter "NONE "			
2 Componedation of the mignost para employees (early and those me	(b) Title, and average		(d) Contributions to	(e) Exp	ense
(a) Name and address of each employee paid more than \$50,000	hours per week devoted to position	(c) Compensation	employee benefit plans and deferred	(e) Exp account allowa	, other
Elizabeth Smith - 191 Peachtree St	Grants Progra	m Dirogto	compensation	allowa	11062
NE, #3540, Atlanta, GA 30303	23.00	61823.	14334.	_	88.
•	Controller	01023.	14334.		00.
•	23.00	F2670	15015	_	00
#3540, Atlanta, GA 30303		53679.	15215.		88.
	Senior Progra			_	00
#3540, Atlanta, GA 30303	23.00	43399.	16129.		88.
			<u> </u>		
Total number of other employees paid over \$50,000					Ω

Part VIII Information About Officers, Directors, Trustees, Four Paid Employees, and Contractors (continued)		3 1 2 3 1 ago 1
3 Five highest-paid independent contractors for professional services. If none, e	nter "NONE."	
(a) Name and address of each person paid more than \$50,000	(b) Type of service	(c) Compensation
SUNTRUST BANK	(2) 31	1
303 PEACHTREE ST, ATLANTA, GA 30308	INVESTMENT ADVISOR	230313.
- SOS TEMORITADO DI, MIDMINI, ON SOSOO		230313.
<b>Total</b> number of others receiving over \$50,000 for professional services		<u>▶</u> 0
Part IX-A Summary of Direct Charitable Activities		
List the foundation's four largest direct charitable activities during the tax year. Include relevant st number of organizations and other beneficiaries served, conferences convened, research papers		Expenses
1 N/A		
2		
3		
4		
Part IX-B Summary of Program-Related Investments		
Describe the two largest program-related investments made by the foundation during the tax year	r on lines 1 and 2.	Amount
1N/A		
2		
All other program-related investments. See instructions.  3		
Total. Add lines 1 through 3	<b>&gt;</b>	0.

Form **990-PF** (2016)

141816187.

Adjusted qualifying distributions. Subtract line 5 from line 4

4940(e) reduction of tax in those years.

Note: The amount on line 6 will be used in Part V, column (b), in subsequent years when calculating whether the foundation qualifies for the section

# Part XIII Undistributed Income (see instructions)

	<b>(a)</b> Corpus	(b) Years prior to 2015	(c) 2015	<b>(d)</b> 2016
1 Distributable amount for 2016 from Part XI, line 7				148614317.
2 Undistributed income, if any, as of the end of 2016:				
a Enter amount for 2015 only			137229963.	
<b>b</b> Total for prior years:				
		0.		
3 Excess distributions carryover, if any, to 2016:				
<b>a</b> From 2011				
<b>b</b> From 2012				
<b>c</b> From 2013				
<b>d</b> From 2014				
eFrom 2015	0			
f Total of lines 3a through e	0.			
4 Qualifying distributions for 2016 from Part XII, line 4: ►\$ 142762574.				
			137229963.	
a Applied to 2015, but not more than line 2a			13/229903•	
<b>b</b> Applied to undistributed income of prior		0.		
years (Election required - see instructions) c Treated as distributions out of corpus		0.		
•	0.			
(Election required - see instructions)d Applied to 2016 distributable amount	0.			5532611.
e Remaining amount distributed out of corpus	0.			3332011.
·	0.			0.
5 Excess distributions carryover applied to 2016 (If an amount appears in column (d), the same amount must be shown in column (a).)	0,			<u> </u>
6 Enter the net total of each column as indicated below:				
<b>a</b> Corpus. Add lines 3f, 4c, and 4e. Subtract line 5	0.			
<b>b</b> Prior years' undistributed income. Subtract	<u> </u>			
line 4b from line 2b		0.		
<b>c</b> Enter the amount of prior years'				
undistributed income for which a notice of				
deficiency has been issued, or on which the section 4942(a) tax has been previously				
assessed		0.		
<b>d</b> Subtract line 6c from line 6b. Taxable				
amount - see instructions		0.		
e Undistributed income for 2015. Subtract line				
4a from line 2a. Taxable amount - see instr			0.	
f Undistributed income for 2016. Subtract				
lines 4d and 5 from line 1. This amount must				
be distributed in 2017				143081706.
7 Amounts treated as distributions out of				
corpus to satisfy requirements imposed by				
section 170(b)(1)(F) or 4942(g)(3) (Election	0			
may be required - see instructions)	0.			
8 Excess distributions carryover from 2011	0			
not applied on line 5 or line 7	0.			
9 Excess distributions carryover to 2017.	0.			
Subtract lines 7 and 8 from line 6a	0.			
10 Analysis of line 9: a Excess from 2012				
b Excess from 2013				
c Excess from 2014				
d Excess from 2015				
e Excess from 2016				

623581 11-23-16

Part XIV   Private Operating F	oundations (see ins	structions and Part VI	I-A, question 9)	N/A	
1 a If the foundation has received a ruling o	r determination letter that	it is a private operating			
foundation, and the ruling is effective fo	r 2016, enter the date of the	he ruling			
<b>b</b> Check box to indicate whether the found				4942(j)(3) or 49	942(j)(5)
2 a Enter the lesser of the adjusted net	Tax year		Prior 3 years		
income from Part I or the minimum	(a) 2016	<b>(b)</b> 2015	(c) 2014	(d) 2013	(e) Total
investment return from Part X for					
each year listed					
<b>b</b> 85% of line 2a					
c Qualifying distributions from Part XII,					
line 4 for each year listed					
<b>d</b> Amounts included in line 2c not					
used directly for active conduct of					
exempt activities					
e Qualifying distributions made directly					
for active conduct of exempt activities.					
Subtract line 2d from line 2c					
<b>3</b> Complete 3a, b, or c for the					
alternative test relied upon:					
a "Assets" alternative test - enter:					
(1) Value of all assets					
(2) Value of assets qualifying under section 4942(j)(3)(B)(i)					
<b>b</b> "Endowment" alternative test - enter					
2/3 of minimum investment return shown in Part X, line 6 for each year listed					
c "Support" alternative test - enter:					
(1) Total support other than gross					
investment income (interest,					
dividends, rents, payments on					
securities loans (section 512(a)(5)), or royalties)					
(2) Support from general public					
and 5 or more exempt					
organizations as provided in					
section 4942(j)(3)(B)(iii)					
(3) Largest amount of support from					
an exempt organization					
(4) Gross investment income  Part XV   Supplementary Info	rmation (Comple	to this part only	if the foundation	had \$5,000 or me	oro in accote
at any time during t			ii tile loullation	nau \$5,000 or inc	ore iii assets
		uctions. <sub>j</sub>			
1 Information Regarding Foundation	•	N 00/ - f N t-t-l	note cate or a construction of the cate or	farmalation bafanatha ala	
a List any managers of the foundation wh year (but only if they have contributed n			tributions received by the	toundation before the clos	se of any tax
. ,	ιοιο ιπαπ φο,σσο). (σσο στ	0011011 007 (u)(L):)			
None	400/		/		
b List any managers of the foundation wh other entity) of which the foundation has			(or an equally large portion	on of the ownership of a pa	artnersnip or
	7 a 1070 of groater interes				
None					
2 Information Regarding Contributi		• ' '	•		
				ot accept unsolicited requ	
the foundation makes gifts, grants, etc.	,				ı u.
a The name, address, and telephone num		he person to whom appl	ications should be addres	ssed:	
See attached schedul	е				
<b>b</b> The form in which applications should be		ion and materials they s	hould include:		
See attached schedul	<u>e</u>				
c Any submission deadlines:					
See attached schedul					
d Any restrictions or limitations on awards		ıl areas, charitable fields,	, kinds of institutions, or c	other factors:	
See attached schedul	е				

Supplementary information	<u> </u>	_		
3 Grants and Contributions Paid During the Y	ear or Approved for Future	Payment		
Recipient Name and address (home or business)	If recipient is an individual, show any relationship to any foundation manager or substantial contributor	Foundation status of	Purpose of grant or contribution	Amount
	or substantial contributor	recipient		
a Paid during the year				
See attached schedule				
				141941856.
Total	 T	 T	<b>&gt;</b> 3a	141941856.
<b>b</b> Approved for future payment				
See attached schedule				
				16000000.
Total			<b>&gt;</b> 3b	16000000.
			F	orm <b>990-PF</b> (2016)

# Form 990-PF (2016) Part XVI-A

Enter gross amounts unless otherwise indicated.				ded by section 512, 513, or 514	(e)	
and greet and and an order of the management	(a)	(b)	(C) Exclu-	(d)	Related or exempt	
1 Program service revenue:	Business code	Amount	sion code	Amount	function income	
a						
b						
С						
d						
e						
f						
g Fees and contracts from government agencies						
2 Membership dues and assessments						
3 Interest on savings and temporary cash						
investments			14	387476.		
4 Dividends and interest from securities			14	94872296.		
5 Net rental income or (loss) from real estate:						
a Debt-financed property						
<b>b</b> Not debt-financed property						
6 Net rental income or (loss) from personal						
property						
7 Other investment income						
8 Gain or (loss) from sales of assets other						
than inventory			18	-6613768.		
9 Net income or (loss) from special events						
10 Gross profit or (loss) from sales of inventory						
11 Other revenue:						
a Ichauway, Inc. rent			16	1.		
b						
d						
е						
12 Subtotal. Add columns (b), (d), and (e)		0	•	88646005.	0.	
13 Total. Add line 12, columns (b), (d), and (e)				13	88646005.	
(See worksheet in line 13 instructions to verify calculations.)						

Part XVI-B Relationship of Activities to the Accomplishment of Exempt Purposes

Line No. ▼	Explain below how each activity for which income is reported in column (e) of Part XVI-A contributed importantly to the accomplishment of the foundation's exempt purposes (other than by providing funds for such purposes).

		. C W. WOC					20-103			ige 13
Part	Information Re Exempt Organ		insters to	and Irans	actions a	and Relation	onships With Noncha	aritable	е	
1 Di	d the organization directly or indi		ny of the following	ng with any oth	er organizatio	on described in	section 501(c) of	THE	Yes	No
	e Code (other than section 501(c				_		• • • • • • • • • • • • • • • • • • • •			III = II
a Tr	ansfers from the reporting found	lation to a nonchar	itable exempt or	ganization of:				(18)		
(1	) Cash							_ 1a(1)		X
(2	) Other assets							_ 1a(2)		X
	her transactions:									
(1	) Sales of assets to a noncharita	able exempt organi	zation					1b(1)		X
(2	) Purchases of assets from a no	ncharitable exemp	t organization					1b(2)		X
(3	) Rental of facilities, equipment,	or other assets						_ 1b(3)	$\square$	X
(4	) Reimbursement arrangements							1b(4)	_	X
(5	) Loans or loan guarantees					• • • • • • • • • • • • • • • • • • • •		1b(5)	_	X
(6	) Performance of services or me	embership or fundi	raising solicitatio	ons		• • • • • • • • • • • • • • • • • • • •		. 1b(6)		X
	naring of facilities, equipment, ma									X
	the answer to any of the above is								sets,	
	services given by the reporting following (d) the value of the goods,			ed less than fai	r market vall	ie in any transa	ction or sharing arrangement,	snow in		
(a)Line			of noncharitable	e evemnt organ	ization	(d) Decem	iption of transfers, transactions, and			
(a)cine	(b) / should hively cu	(o) Name	N/A		iization	(u) Descr	iption of transfers, transactions, and	snaring ar	rangeme	nts
			14/12							
						+				
	<u> </u>					+				
						+				
					•					
							·			
	the foundation directly or indirec				empt organi	zations describe	ed			
in	section 501(c) of the Code (other	r than section 501	(c)(3)) or in sect	tion 527?				Yes	X	No
b If"	Yes," complete the following sch			L						
	(a) Name of org	janization		(b) Type of o	rganization		(c) Description of relations	hip		
	N/A									
									-	
	Under penalties of periory, I declare	that I have examined	this return, includin	n accompanying	schedules and	statements and to	the heet of my knowledge			
Sign	and belief, it is true correct, and con	nplete. Declaration of	preparer other that	n taxpayer) is bas	ed on all inform	ation of which pre	Ma	y the IRS ourn with the	discuss ti e prepare	nis er
Here	1 /25	11 4	-	15/	9/17	Dros	ident	own below	(see inst	r.)?
	Signature of officer or trustee	VY		Date	* ( * )	Title	L	Yes		No
	Print/Type preparer's na		Preparer's s			Date	Check   if   PTIN			
	24.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.			•			self- employed			
Paid										
Prep	arer Firm's name ▶						Firm's EIN ▶			
Use										
	Firm's address ▶									

Phone no.

#### Form **2220**

Underpayment of Estimated Tax by Corporations

Attach to the corporation's tax return.

Form 990-PF

OMB No. 1545-0123 2016

Department of the Treasury Internal Revenue Service

Information about Form 2220 and its separate instructions is at www.irs.gov/form2220.

Robert W. Woodruff Foundation, Inc.

Employer identification number 58-1695425

Note: Generally, the corporation isn't required to file Form 2220 (see Part II below for exceptions) because the IRS will figure any penalty owed and bill the corporation. However, the corporation may still use Form 2220 to figure the penalty. If so, enter the amount from page 2, line 38 on the estimated tax penalty line of the corporation's income tax return, but do not attach Form 2220.

	Part I Required Annual Payment	Ctan	,, 201 00 1101 01100111				
_	Total tay (eee instructions)					1	946387.
'	Total tax (see instructions)					'	740307.
2 8	a Personal holding company tax (Schedule PH (Form 1120), lin	e 26)	included on line 1	2a			
	b Look-back interest included on line 1 under section 460(b)(2)						
	contracts or section 167(g) for depreciation under the income			2b			
	Credit for federal tax paid on fuels (see instructions)						
(	d Total. Add lines 2a through 2c					2d	_
3	Subtract line 2d from line 1. If the result is less than \$500, $\operatorname{\textbf{do}}$		·	•			0.4.6.2.0.17
	doesn't owe the penalty					3	946387.
4	Enter the tax shown on the corporation's 2015 income tax ret					,	1803624.
	or the tax year was for less than 12 months, skip this line a	na en	ter the amount from line	3 ON line 5		4	1003024.
5	Required annual payment. Enter the smaller of line 3 or line	/ If +I	ha carparation is require	d to skip line 4			
J	enter the amount from line 3			•		5	946387.
F	Part II Reasons for Filing - Check the boxes belo					•	3100071
_	even if it doesn't owe a penalty. See instructions.		tappiy: If any boxes are	onconca, inc corporation		0	
6	The corporation is using the adjusted seasonal installi	ment r	method.				
7	X The corporation is using the annualized income install						
8	X The corporation is a "large corporation" figuring its firs	st requ	ıired installment based o	n the prior year's tax.			
F	Part III Figuring the Underpayment						
			(a)	(b)	(c)		(d)
9	Installment due dates. Enter in columns (a) through (d) the 15th day of the 4th ( <i>Form 990-PF filers:</i> Use 5th month), 6th, 9th, and 12th months of the						
	Use 5th month), 6th, 9th, and 12th months of the		05/15/16	06/15/16	00/15/	ا ء 1	10/15/16
40	corporation's tax year	9	05/15/16	06/15/16	09/15/	Τρ	12/15/16
10	Required installments. If the box on line 6 and/or line 7						
	above is checked, enter the amounts from Sch A, line 38. If						
	the box on line 8 (but not 6 or 7) is checked, see instructions for the amounts to enter. If none of these boxes are checked.						
	enter 25% (0.25) of line 5 above in each column.	10	15885.	25250.	3467	37.	273951.
11	Estimated tax paid or credited for each period. For		130031	232301	3107	<del>, , ,</del>	
••	column (a) only, enter the amount from line 11 on line 15.						
	See instructions	11	35788.	50000.	7050	00.	165000.
	Complete lines 12 through 18 of one column						
	before going to the next column.						
12	Enter amount, if any, from line 18 of the preceding column	12		19903.	446		402916.
13	Add lines 11 and 12	13		69903.	7496	53.	567916.
14	Add amounts on lines 16 and 17 of the preceding column	14					
	Subtract line 14 from line 13. If zero or less, enter -0	15	35788.	69903.	7496	53.	567916.
16	If the amount on line 15 is zero, subtract line 13 from line			_		_	
	14. Otherwise, enter -0-	16		0.		0.	
17							
	subtract line 15 from line 10. Then go to line 12 of the next	,					
10	column. Otherwise, go to line 18	17					
10	from line 15. Then go to line 12 of the next column	18	19903.	44653.	4029	16.	
	וויטווו וווויט ויט. דוופוו עט נט וווופ וב טו נוופ וופגנ נטועווווו	10	± 7 7 0 3 •	33000	4047	± ∨ •	

Go to Part IV on page 2 to figure the penalty. Do not go to Part IV if there are no entries on line 17 - no penalty is owed.

For Paperwork Reduction Act Notice, see separate instructions.

Form 2220 (2016)

Form 2220 (2016)

# Part IV Figuring the Penalty

			(a)	(b)	(c)	(d)
19	Enter the date of payment or the 15th day of the 4th month after the close of the tax year, whichever is earlier. (C Corporations with tax years ending June 30 and S corporations: Use 3rd month instead of 4th month. Form 990-PF and Form 990-T filers: Use 5th month instead of 4th month.) See instructions	19				
20	Number of days from due date of installment on line 9 to the					
	date shown on line 19	20				
21	Number of days on line 20 after 4/15/2016 and before 7/1/2016	21				
22	Underpayment on line 17 x Number of days on line 21 x 4% (0.04)	22	\$	\$	\$	\$
23	Number of days on line 20 after 06/30/2016 and before 10/1/2016	23				
24	Underpayment on line 17 x Number of days on line 23 x 4% (0.04)	24	\$	\$	\$	\$
25	Number of days on line 20 after 9/30/2016 and before 1/1/2017	25				
26	Underpayment on line 17 x Number of days on line 25 x 4% (0.04)	26	\$	\$	\$	\$
27	Number of days on line 20 after 12/31/2016 and before 4/1/2017	27				
28	Underpayment on line 17 x Number of days on line 27 x 4% (0.04)	28	\$	\$	\$	\$
29	Number of days on line 20 after 3/31/2017 and before 7/1/2017	29				
30	Underpayment on line 17 x Number of days on line 29 x *%	30	\$	\$	\$	\$
31	Number of days on line 20 after 6/30/2017 and before 10/1/2017	31				
32	Underpayment on line 17 x Number of days on line 31 x *% 365	32	\$	\$	\$	\$
33	Number of days on line 20 after 9/30/2017 and before 1/1/2018	33				
34	Underpayment on line 17 x Number of days on line 33 x *%	34	\$	\$	\$	\$
35	Number of days on line 20 after 12/31/2017 and before 3/16/2018	35				
36	Underpayment on line 17 x Number of days on line 35 x *%	36	\$	\$	\$	\$
37	Add lines 22, 24, 26, 28, 30, 32, 34, and 36	37	\$	\$	\$	\$
38	<b>Penalty.</b> Add columns (a) through (d) of line 37. Enter the to or the comparable line for other income tax returns		•	•	38	\$ 0.

<sup>\*</sup> Use the penalty interest rate for each calendar quarter, which the IRS will determine during the first month in the preceding quarter. These rates are published quarterly in an IRS News Release and in a revenue ruling in the Internal Revenue Bulletin. To obtain this information on the Internet, access the IRS website at **www.irs.gov.** You can also call 1-800-829-4933 to get interest rate information.

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Page 3

Form 990-PF

#### Schedule A Adjusted Seasonal Installment Method and Annualized Income Installment Method

See instructions.

**Form 1120S filers:** For lines 1, 2, 3, and 21, below, "taxable income" refers to excess net passive income or the amount on which tax is imposed under section 1374(a), whichever applies.

#### **Adjusted Seasonal Installment Method**

Caution: Use this method only if the base period percentage for any 6 consecutive months is at least 70%. See instructions.

		(a)	(b)	(c)	(d)
1 Enter taxable income for the following periods:		First 3 months	First 5 months	First 8 months	First 11 months
<b>a</b> Tax year beginning in 2013	1a				
<b>b</b> Tax year beginning in 2014	1b				
<b>c</b> Tax year beginning in 2015	1c				
2 Enter taxable income for each period for the tax year beginning in					
2016. See the instructions for the treatment of extraordinary items	2				
O Fortunate control to a control for the following a control of		First 4 months	First 6 months	First 9 months	Entire year
3 Enter taxable income for the following periods:					
<b>a</b> Tax year beginning in 2013	3a				
<b>a</b> Tax year beginning in 2013	Ja				
<b>b</b> Tax year beginning in 2014	3b				
brux your boginning in 2014					
<b>c</b> Tax year beginning in 2015	3c				
4 Divide the amount in each column on line 1a by the					
amount in column (d) on line 3a	4				
5 Divide the amount in each column on line 1b by the					
amount in column (d) on line 3b	5				
6 Divide the amount in each column on line 1c by the					
amount in column (d) on line 3c	6				
7 Add lines 4 through 6	7				
8 Divide line 7 by 3.0	8				
9a Divide line 2 by line 8	9a				
<b>b</b> Extraordinary items (see instructions)	9b				
<b>c</b> Add lines 9a and 9b	9с				
10 Figure the tax on the amt on In 9c using the instr for Form					
1120, Sch J, line 2 or comparable line of corp's return $\dots$	10				
<b>11a</b> Divide the amount in columns (a) through (c) on line 3a					
by the amount in column (d) on line 3a	11a				
<b>b</b> Divide the amount in columns (a) through (c) on line 3b					
by the amount in column (d) on line 3b	11b				_
c Divide the amount in columns (a) through (c) on line 3c					
by the amount in column (d) on line 3c	11c				
12 Add lines 11a though 11c	12				
13 Divide line 12 by 3.0	13				
14 Multiply the amount in columns (a) through (c) of line 10					
by columns (a) through (c) of line 13. In column (d), enter					
the amount from line 10, column (d)  15 Enter any alternative minimum tax for each payment	14				
	15				
period. See instructions	10				
<b>16</b> Enter any other taxes for each payment period. See instr.	16				
17 Add lines 14 through 16	17				
18 For each period, enter the same type of credits as allowed	<del>- ''  </del>				
on Form 2220, lines 1 and 2c. See instructions	18				
19 Total tax after credits. Subtract line 18 from line 17. If					
zero or less, enter -0-	19				

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(d)

Page 4

Form 2220 (2016)

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(a)

(b)

(c)

# Part II Annualized Income Installment Method

		(ω)	(5)	(0)	(4)
		First 2	First 3	First 6	First 9
20 Annualization periods (see instructions)	20	months	months	months	months
21 Enter taxable income for each annualization period. See					
instructions for the treatment of extraordinary items	21	1058980.	2056750.	25858150.	49636824.
22 Annualization amounts (see instructions)	22	6.000000	4.000000	2.000000	1.333330
, , , , , , , , , , , , , , , , , , , ,					
23a Annualized taxable income. Multiply line 21 by line 22	23a	6353880.	8227000.	51716300.	66182267.
<b>b</b> Extraordinary items (see instructions)	23b				
c Add lines 23a and 23b	23c	6353880.	8227000.	51716300.	66182267.
24 Figure the tax on the amount on line 23c using the					
instructions for Form 1120, Schedule J, line 2,					
or comparable line of corporation's return	24	63539.	82270.	517163.	661823.
25 Enter any alternative minimum tax for each payment					
period (see instructions)	25				
26 Enter any other taxes for each payment period. See instr.	26				
27 Total tax. Add lines 24 through 26	27	63539.	82270.	517163.	661823.
28 For each period, enter the same type of credits as allowed					
on Form 2220, lines 1 and 2c. See instructions	28				
29 Total tax after credits. Subtract line 28 from line 27. If					
zero or less, enter -0-	29	63539.	82270.	517163.	661823.
<b>30</b> Applicable percentage	30	25%	50%	75%	100%
31 Multiply line 29 by line 30	31	15885.	41135.	387872.	661823.
Part III Required Installments					
Note: Complete lines 32 through 38 of one column		1st	2nd	3rd	4th
before completing the next column.		installment	installment	installment	installment
32 If only Part I or Part II is completed, enter the amount in					
each column from line 19 or line 31. If both parts are					
completed, enter the smaller of the amounts in each					
column from line 19 or line 31	32	15885.	41135.	387872.	661823.
<b>33</b> Add the amounts in all preceding columns of line 38.					
See instructions	33		15885.	41135.	387872.
34 Adjusted seasonal or annualized income installments.					
Subtract line 33 from line 32. If zero or less, enter -0- $\dots$	34	15885.	25250.	346737.	273951.
<b>35</b> Enter 25% (0.25) of line 5 on page 1 of Form 2220 in					
each column. Note: "Large corporations," see the					
instructions for line 10 for the amounts to enter	35	236597.	236597.	236596.	236597.
<b>36</b> Subtract line 38 of the preceding column from line 37 of					
the preceding column	36		220712.	432059.	321918.

273951. Form **2220** (2016)

558515.

\*\* Annualized Income Installment Method Using Standard Option

236597.

15885.

37

38

**37** Add lines 35 and 36

See instructions

38 Required installments. Enter the smaller of line 34 or line 37 here and on page 1 of Form 2220, line 10.

457309.

25250.

668655.

346737

	:) isted income
market interest 387476. 387476	
Total to Part I, line 3 387476. 387476.	
Form 990-PF Dividends and Interest from Securities States	nent 2
	(c) ljusted : Income
Dividends 94872296. 0. 94872296. 94872296.	
To Part I, line 4 94872296. 0. 94872296. 94872296.	
Form 990-PF Other Income States	nent 3
Revenue Net Invest- Adj	c) justed Income
Ichauway, Inc. rent 1. 0.	
Total to Form 990-PF, Part I, line 11	
Form 990-PF Legal Fees States	nent 4
	(d) aritable arposes
Caplan Cobb LLP 6455. 0.	6455.
To Fm 990-PF, Pg 1, ln 16a 6455. 0.	6455.

Form 990-PF	Accounti	ng Fees	Statement 5		
Description	(a) Expenses Per Books	(b) Net Invest- ment Income	(c) Adjusted Net Income	(d) Charitable Purposes	
Audits	24252.	7518.		16734.	
To Form 990-PF, Pg 1, ln 16b	24252.	7518.		16734.	
Form 990-PF (	Other Profes	sional Fees	S	tatement 6	
Description	(a) Expenses Per Books	(b) Net Invest- ment Income	(c) Adjusted Net Income	(d) Charitable Purposes	
SunTrust Bank HR Consulting	230313. 11771.	230313.		0. 8122.	
To Form 990-PF, Pg 1, ln 16c	242084.	233962.		8122.	
Form 990-PF	Tax	es	S	tatement 7	
Description	(a) Expenses Per Books	(b) Net Invest- ment Income	(c) Adjusted Net Income	(d) Charitable Purposes	
Excise Tax	935000.	0.		0.	
To Form 990-PF, Pg 1, ln 18	935000.	0.		0.	
Form 990-PF	Other E	xpenses	S	tatement 8	
Description	(a) Expenses Per Books	(b) Net Invest- ment Income	(c) Adjusted Net Income	(d) Charitable Purposes	
Computer Office Insurance Office Equipment Supplies Organization Dues Postage	30280. 13082. 406. 2790. 37155. 1505.	4055.		20893. 9027. 280. 1925. 35100. 1038.	

Robert W. Woodruff Foundation	n, Inc.				58-1695	425
Repairs/Maintenance Telephone Miscellaneous	3851. 3275. 1257.	. 1	194. 015. 389.		22	57. 60. 68.
To Form 990-PF, Pg 1, ln 23	93601.	. 19	553.		740	48.
Form 990-PF	Corporat	te Stock			Statement	9
Description			Book	Value	Fair Marke Value	t
various - see attached detail			39	9962405.	2927882263	
Total to Form 990-PF, Part II,	39	9962405.	29278822	63.		
Form 990-PF	Other Inv	restments			Statement	10
Description		aluation Method	Book	Value	Fair Marke Value	t
Neuberger Berman High Income Bo Fund	ond	COST	2	0523965.	209865	89.
Total to Form 990-PF, Part II,	line 13		2	0523965.	209865	89.
Form 990-PF	Other	Assets			Statement	11
Description		nning of ok Value		f Year Value	Fair Marke Value	t
457(b) Plan Benefit Plans		144861. 8352.		168485. 7788.	2198 77	85. 88.
To Form 990-PF, Part II, line 3	15	153213.		176273.	2276	73.

# ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425

# Form 990-PF, Year 2016, Part I, Line 19a and Part II, Line 14

Asset Description	In service	Life	Cost	Depreciation Expense	Accumulated Depreciation	Net Book Value
Asset Class- 5-Year Property (Computers)						
AV Equipment	7/1/11	5	6,096	610	6,096	0
AV for sitting room	3/1/12	5	1,410	282	1,363	47
AV for sitting room	3/1/12	5	482	96	465	17
Class totals			7,988	988	7,924	64
Asset Class- 7-Year Property (Furniture,						
Telephones, Copiers)						
Board Table	7/1/11	7	13,554	1,936	10,649	2,905
Card Access	7/1/11	7	1,705	244	1,341	364
Card Access	7/1/11	7	756	108	594	162
Chairs	7/1/11	7	18,907	2,701	14,855	4,052
Credenza Desk Chairs	7/1/11 7/1/11	7 7	514 2,112	73 302	403 1,660	111 452
Desks and Credenzas	7/1/11	7	40,533	5,790	31,847	8,686
File Cabinets	7/1/11	7	12,563	1,795	9,872	2,691
File Cabinets	7/1/11	7	73	10	5,57	16
Furniture Installation	7/1/11	7	162	23	127	35
Furniture Installation	7/1/11	7	73	10	57	16
Furniture Installation	7/1/11	7	876	125	688	188
Furniture Installation	7/1/11	7	4,095	585	3,218	877
Guest Chairs	7/1/11	7	1,868	267	1,468	400
Rug	7/1/11	7	3,654	522	2,871	783
Rugs	7/1/11	7	6,080	869	4,778	1,302
Sitting Room Table	7/1/11	7	812	116	638	174
Breakroom tables	10/1/11	7 7	511	73 287	383	128 502
Drapery Rug	10/1/11 10/1/11	7	2,008 1,751	250	1,506 1,313	438
Art- Photography	10/1/11	7	2,122	303	1,513	531
Art- Photography	10/1/11	7	593	85	445	148
Credenza and Installation	11/1/11	7	1,108	158	817	291
President's Desk	12/1/11	7	3,242	463	2,354	888
Leather Chair	3/1/12	7	711	102	492	219
Sitting room artwork	4/1/12	7	2,737	391	1,857	880
Art- Photography	8/1/12	7	1,399	200	883	516
Class totals			124,516	17,788	96,764	27,755
Asset Class- 15-Year Leasehold Improvements	7/4/4:	4-	45.000	2.002	400	20.000
Leasehold Improvements Construction Admin	7/1/11 7/1/11	15 15	45,930 879	3,062 59	16,841 323	29,089 556
Media and display casework	3/1/11	15	879 5,974	398	1,924	4,050
Media and display casework  Media and display casework	3/1/12	15	6,171	411	1,988	4,183
Electrical for sitting rm	3/1/12	15	986	66	318	668
Film to offices	6/1/12	15	662	44	202	460
Class totals	, ,		60,602	4,040	21,596	39,006
Ichauway, Baker County, Georgia - depreciation wa	s taken for 10	years on a	assets used direct	ly in carrying o	ut charitable pu	rposes.
Land			21,357,531		0	21,357,531
Buildings Class totals			492,259 <b>21,849,790</b>	0	492,259 <b>492,259</b>	0 21,357,531
GRAND TOTAL			22,042,895	22,816	618,542	21,424,353

### ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425

#### Form 990-PF, Year 2016, Part I, Line 25 and Part XV, Line 3a

### **GRANTS PAID IN 2016**

Recipient	Foundation Status	Purpose of Grant	Amount
CULTURAL ACTIVITIES Atlanta Botanical Garden 1345 Piedmont Avenue, NE Atlanta, GA 30309	PC	\$50 million campaign to implement the Garden's new master plan, including \$5 million for development of the Glade Garden, \$5 million for renovation of the Gardenhouse and \$5 million for completion of the campaign.	5,000,000
Historic Westville Inc. P.O. Box 3442 Columbus, GA 31903	PC	Relocation of living history museum to Columbus, Georgia.	250,000
Robert W. Woodruff Arts Center 1280 Peachtree Street, NE Atlanta, GA 30309	PC	Comprehensive campaign for capital improvements and endowment.	15,144,763
Augusta Symphony Inc. 1301 Greene St., Suite 200 Augusta, GA 30903	PC	Renovation of the historic Miller Theater and its adjacent property to create a performing arts center.	2,000,000
		TOTAL CULTURAL ACTIVITIES	22,394,763
COMMUNITY DEVELOPMENT Andrew J. Young Foundation 260 14th Street, NW Atlanta, GA 30318	PC	Production and circulation of Andrew Young's Making of Modern Atlanta.	200,000
Atlanta Police Foundation 191 Peachtree Street, NE, Suite 191 Atlanta, GA 30303	PC	\$12 million campaign to support a comprehensive public safety strategy to reduce crime.	500,000
Community Foundation for Greater Atlanta 191 Peachtree Street, NE, Suite 1000 Atlanta, GA 30303	PC	Implementation of strategic plan to significantly grow the assets and grantmaking of CFGA.	1,000,000
Foundation Center 32 Old Slip, 24th Floor New York, NY 10005	PC	Two-year program support of the Foundation Center Atlanta (\$275,000 per year).	275,000
Friends of the Jimmy Carter National Historic Site P.O. Box 315 Plains, GA 31780-0315	PC	Expansion and development of the Jimmy Carter National Historic Site in Plains, GA.	1,000,000
Georgia Center for Nonprofits 100 Peachtree Street, Suite 1500 Atlanta, GA 30303	PC	Operating support (\$200,000 per year) and two-year support of campaign to refresh OpportunityKnocks.org and grow Momentum consulting work (\$350,000).	375,000
Georgia World Congress Center Authority 285 Andrew Young International Blvd., NW Atlanta, GA 30313-1591	GOV	Implementation of master plan to expand and improve Centennial Olympic Park.	5,000,000
Global Ministries of The United Methodist Church 458 Ponce de Leon Avenue, NE Atlanta, GA 30308	PC	Relocation to Atlanta of the headquarters for The United Methodist Church's mission outreach arm.	1,500,000
Greater Atlanta Chamber Foundation 191 Peachtree Street, NE, Suite 3400 Atlanta, GA 30303	SO II	Campaign to attract Millennial talent to Atlanta to ensure a quality workforce.	1,000,000
PATH Foundation P.O. Box 14327 Atlanta, GA 30324	PC	\$15.8 million campaign to construct 37 new miles of PATH trails.	4,000,000
		TOTAL COMMUNITY DEVELOPMENT	14,850,000

### ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425

#### Form 990-PF, Year 2016, Part I, Line 25 and Part XV, Line 3a

## **GRANTS PAID IN 2016**

Recipient	Foundation Status	Purpose of Grant	Amount
EDUCATION Georgia Council on Economic Education P.O. Box 1619 Atlanta, GA 30301-1619	PC	Program support over three years.	200,000
Georgia Partnership for Excellence in Education 270 Peachtree Street, Suite 2200 Atlanta, GA 30303	PC	Establishment of the Woodrow Wilson Georgia Teaching Fellowship to recruit and prepare highly-qualified STEM teachers for public middle and high schools.	2,765,000
Georgia State University Foundation P.O. Box 3999 Atlanta, GA 30302-3999	PC	Renovation of the block at 25 Park Place, including new classroom space for media production programs and streetscape improvements to GSU's Woodruff Park District.	6,605,000
Georgia Tech Foundation Georgia Institute of Technology Atlanta, GA 30332	PC	Construction of the Engineered Biosystems Building.	5,000,000
Mercer University 1501 Mercer University Drive Macon, GA 31207	PC	Construction of a new undergraduate science building.	5,000,000
Morehouse School of Medicine 720 Westview Dr., SW Atlanta, GA 30310-1495	PC	\$24.6 million pavilion addition and Hugh Gloster Building renovation.	3,000,000
University of Georgia Foundation 220 South Jackson Street Administration Building Athens, GA 30602-1661	PC	Phase II construction of the Business Learning Community campus for the Terry College of Business.	5,000,000
University of Georgia Foundation 220 South Jackson Street Administration Building Athens, GA 30602-1661	PC	Need-based financial aid as part of \$1.2 billion campaign.	30,000,023
		TOTAL EDUCATION	57,570,023
ENVIRONMENT Ichauway, Incorporated 3988 Jones Center Drive Newton, GA 39870	POF	2017 capital and operating needs.	1,000,000
Ichauway, Incorporated 3988 Jones Center Drive Newton, GA 39870	POF	2016 capital and operating needs.	9,785,000
Trees Atlanta 225 Chester Avenue, SE Atlanta, GA 30316	PC	\$5 million Branching Out campaign to increase tree plantings, expand educational offerings and strengthen conservation initiatives.	625,000
		TOTAL ENVIRONMENT	11,410,000
HEALTH National Foundation for the Centers for Disease Control & Prevention 55 Park Place, Suite 400 Atlanta, GA 30303-2539	PC	Development of a report by the Institute of Medicine to assess the health consequences of marijuana use.	250,000
National Foundation for the Centers for Disease Control & Prevention 55 Park Place, Suite 400 Atlanta, GA 30303-2539	PC	Infrastructure and technology updates as part of office relocation.	1,000,000

### ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425

#### Form 990-PF, Year 2016, Part I, Line 25 and Part XV, Line 3a

#### **GRANTS PAID IN 2016**

Recipient Emory University	Foundation Status PC	Purpose of Grant Investments in key priorities of Emory Medicine to bolster brain health and	<b>Amount</b> 18,037,070
201 Dowman Drive Atlanta, GA 30322		neuroscience programs; expand the Winship Cancer Institute; and support signature programs.	
Georgia Meth Project 3715 Northside Parkway, Suite 1-230 Atlanta, GA 30327	PC	Campaign to educate youth about the risks of prescription drug abuse. Payable over two years.	250,000
Georgia State University Research Foundation P.O. Box 3999 Atlanta, GA 30302-3999	PC	Continued support of the Georgia Health Policy Center's program to educate and inform legislators regarding healthcare policy. Payable over three years.	180,000
National Families in Action P.O. Box 133136 Atlanta, GA 30333-3136	PC	Program to educate the public about the effects of marijuana use.	200,000
Task Force for Global Health 325 Swanton Way Decatur, GA 30030	PC	Purchase and renovation of a facility on West Ponce de Leon Avenue to accommodate program growth.	10,000,000
		TOTAL HEALTH	29,917,070
HUMAN SERVICES Eagle Ranch P.O. Box 7200 Chestnut Mountain, GA 30502	PC	\$6.335 million capital campaign to acquire property, make facility improvements, and enhance programs.	750,000
Georgia Food Bank Association 732 Joseph E. Lowery Blvd., NW Atlanta, GA 30318	PC	To build the capacity of Georgia's food banks to provide more food to people in need.	4,000,000
Jewish Family & Career Services 4549 Chamblee Dunwoody Road Atlanta, GA 30338	PC	\$5.1 million campaign to improve campus, including the addition of a building to provide a work program for the disabled.	500,000
Side by Side Brain Injury Clubhouse 1001 Main Street Stone Mountain, GA 30083	PC	Facility improvements as part of \$3.5 million campaign to expand and enhance services for individuals with brain injury.	400,000
The Salvation Army 1000 Center Place, NW Norcross, GA 30093	PC	Disaster relief for victims of Hurricane Matthew in Georgia.	150,000
		TOTAL HUMAN SERVICES	5,800,000
		TOTAL GRANTS	141,941,856
Foundation status of recipient:	PF PC GOV POF SO II	Private non-operating foundation Public charity described in 509(a)(1) or (2) Domestic or foreign government or instrumentality Private operating foundation (section 4942(j)(3)) other than an EOF Type II supporting organization (sections 509(a)(3) and 509(a)(3)(B)(ii)) other than an SO-DP	

SECURITY NAME	COST	MARKET
1 800 FLOWERS COM INC	31,188	33,652
1ST SOURCE CORP	56,051	76,726
2U INC	100,470	124,580
3M CO	1,207,389	1,358,382
8X8 INC	141,974	135,564
A10 NETWORKS INC	44,440	38,833
AAR CORP	102,190	107,082
AARONS INC	192,051	221,307
ABBOTT LABS	829,757	715,117
ABBVIE INC	1,108,743	1,270,372
ABERCROMBIE & FITCH CO-CL A	140,123	87,228
ABM INDUSTRIES INC	162,682	231,195
ACCENTURE PLC CL A	861,698	920,876
ACCO BRANDS CORP	99,086	157,018
ACTIVISION BLIZZARD, INC	333,762	317,407
ACUITY BRANDS INC	130,692	123,048
ADOBE SYS INC	569,163	651,674
ADVANCED AUTO PARTS	175,450	152,208
ADVANCED ENERGY INDS INC	157,660	220,314
AEGION CORP	72,295	90,250
AEP INDUSTRIES	44,982	46,672
AES CORP	77,971	82,142
AETNA INC	500,127	553,953
AETNA INC	786,307	895,352
AFFILIATED MANAGERS GROUP INC	125,610	103,018
AFLAC INC	334,809	364,356
AG MORTGAGE INVESTMENT TRUST REIT	51,411	56,720
AGILENT TECHNOLOGIES INC	153,656	186,340
AGREE REALTY CORP REIT	148,798	140,406
AGROFRESH SOLUTIONS INC	15,617	8,226
AIR LEASE CORP	274,116	279,892
AIR PRODUCTS & CHEMICALS INC	363,926	400,539
AIR TRANSPORT SERVICES GRP INC	54,987	89,615
AIRCASTLE LTD	146,837	134,795
AKAMAI TECHNOLOGIES INC	138,481	147,563
ALAMO GROUP INC	65,385	76,481
ALARM.COM HOLDINGS INC	37,719	35,650
ALASKA AIR GROUP INC	99,550	134,692
ALASKA AIR GROUP INC	1,370,121	1,668,213
ALBEMARLE CORP	116,759	126,710
ALEXION PHARMACEUTICALS INC	485,216	334,994
ALEXION PHARMACEUTICALS INC	1,688,590	1,202,211
ALIBABA GROUP HOLDING LTD SPONS ADR	1,189,622	1,088,844
ALLEGION PLC	64,688	63,488
ALLERGAN PLC	1,362,627	988,517
ALLERGAN PLC Page 1 of	1,142,188	768,637

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SECURITY NAME	COST	MARKET
ALLIANCE DATA SYSTEMS CORP	224,195	171,832
ALLIANT CORP	111,868	104,917
ALLIED WORLD ASSURANCE CO HOLDINGS	S 223,428	327,201
ALLSTATE CORP	279,815	333,169
ALMOST FAMILY INC	36,247	38,588
ALPHA & OMEGA SEMICONDUCTOR	21,190	50,176
ALPHABET INC CL A	2,771,098	2,969,310
ALPHABET INC CL A	3,608,798	3,843,383
ALPHABET INC CL C	2,687,723	2,898,956
ALPHABET INC CL C	1,990,096	2,137,941
ALTRIA GROUP INC	1,503,441	1,656,555
AMAG PHARMACEUTICALS INC	149,168	133,562
AMAZON.COM INC	3,129,947	3,740,352
AMAZON.COM INC	6,306,925	7,506,199
AMBAC FINANCIAL GROUP INC	77,568	107,528
AMEDISYS INC	121,073	128,359
AMEREN CORP	138,280	165,616
AMERICAN AIRLINES GROUP INC	310,467	315,578
AMERICAN AIRLINES GROUP INC	1,761,277	1,893,280
AMERICAN EAGLE OUTFITTERS INC	303,141	285,606
AMERICAN ELEC PWR INC	339,997	375,430
AMERICAN EXPRESS CO	732,514	730,503
AMERICAN INTERNATIONAL GROUP	781,014	800,113
AMERICAN NATIONAL INSURANCE	91,002	109,532
AMERICAN PUBLIC EDUCATION INC	46,573	40,090
AMERICAN TOWER CORP REIT	548,275	568,981
AMERICAN VANGUARD CORP	42,642	51,782
AMERICAN WATER WORKS CO INC	148,723	158,468
AMERICAN WOODMARK CORP	109,162	112,047
AMERICA'S CAR-MART INC	27,441	34,825
AMERIPRISE FINANCIAL INC.	12,334	241,184
AMERISOURCEBERGEN CORP	203,807	163,730
AMETEK INC	162,109	145,022
AMGEN INC	1,525,433	1,375,397
AMKOR TECHNOLOGY INC	121,176	132,751
AMN HEALTHCARE SVCS INC	157,320	209,245
AMPHENOL CORP	206,095	254,554
ANADARKO PETROLEUM CORPORATION	458,085	487,901
ANALOG DEVICES INC	236,248	278,498
ANGIE'S LIST INC	35,236	40,640
ANGIODYNAMICS INC	32,654	43,660
ANI PHARMACEUTICALS, INC	37,612	51,406
ANTHEM INC	471,913	483,355
ANTHEM INC	433,944	457,189
ANWORTH MTG ASSET CORP REIT	52,586	56,374
AON PLC	322,138 Page 2 of 25	379,871

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SECURITY NAME	COST	MARKET
APACHE CORP	213,938	293,739
APARTMENT INVT & MGMT CO CL A REIT	78,040	87,173
APOLLO COMMERCIAL REAL ESTATE REIT	98,234	97,626
APOLLO EDUCATION GROUP INC	97,687	108,969
APPLE INC	8,000,159	7,790,053
APPLE INC	933,581	949,724
APPLIED INDL TECHNOLOGIES INC	191,867	245,381
APPLIED MATERIALS INC	222,482	432,805
ARBOR REALTY TRUST INC REIT	35,645	42,067
ARCBEST CORP	63,226	67,908
ARCHER DANIELS MIDLAND CO	345,190	337,856
ARCONIC INC	106,653	100,079
ARDMORE SHIPPING CORP	33,676	17,331
ARES COMMERCIAL REAL ESTATE CRP REIT	43,211	47,767
ARGO GROUP INTERNATIONAL	188,158	213,780
ARMOUR RESIDENTIAL REIT INC REIT	79,859	83,723
ARMSTRONG FLOORING INC	46,792	49,397
ASCENA RETAIL GROUP INC	246,684	119,888
ASHFORD HOSPITALITY TRUST REIT	62,000	70,445
ASML HOLDING NV ADR	970,814	1,178,100
ASPEN INSURANCE HOLDINGS LTD	224,104	253,605
ASSOCIATED BANC CORP	244,572	311,294
ASSURANT INC	56,336	64,259
ASSURED GUARANTY LTD	417,910	547,892
ASTEC INDS INC COM	115,945	135,527
ASTORIA FINANCIAL CORP	153,388	172,363
AT&T INC	516,213	3,292,035
ATLAS AIR WORLDWIDE HLDGS INC	102,593	130,271
AUTODESK INC	130,864	174,664
AUTOMATIC DATA PROCESSING INC	494,942	579,474
AUTONATION INC	50,593	39,407
AUTOZONE INC	292,910	296,961
AV HOMES INC	17,899	17,396
AVALONBAY COMMUNITIES INC REIT	313,529	313,378
AVERY DENNISON CORP	60,864	66,498
AVX CORP	68,774	79,322
AXOGEN INC	22,416	22,518
AXT INC	19,390	16,157
BAKER HUGHES INC	280,431	345,121
BALDWIN & LYONS INC	19,793	19,127
BALL CORP	138,394	150,515
BANC OF CALIFORNIA, INC	106,181	95,061
BANK OF AMERICA CORP	1,406,920	2,839,894
BANK OF NEW YORK MELLON CORP	573,637	633,897
BANKFINANCIAL CORP	24,228	28,766
BARD CR INC	168,465	205,115
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BARNES & NOBLE EDUCATION INC         58,108         46,408           BARNES & NOBLE INC         75,719         64,748           BASSETT FUNITURE INDS INC         34,655         32,558           BAXTER INTL INC         225,118         267,725           BB&T CORPORATION         387,456         482,942           BEACOR ROOFING SUPPLY INC         170,984         218,602           BEAZER HOMES USA INC         42,890         49,769           BECTON DICKINSON         393,343         451,620           BED BATH & BEYOND INC         112,439         85,750           BEL FUSE INC CL B         17,143         29,510           BENCHMARK ELECTRONICS INC         107,249         162,352           BENEFERICAL BANCORP INC         192,540         126,469           BERST BHY COMPANY INC         107,442         136,203           BERST BHY COMPANY INC         107,442         136,203           BIG S SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIG AND LABORATORIES CL A         208,811         271,597           BIOGEN INC         89,981         783,248           BIOGEN INC         94,537         907,172           BIOGEN INC </th <th>SECURITY NAME</th> <th>COST</th> <th>MARKET</th>	SECURITY NAME	COST	MARKET
BARNES & NOBLE INC         75,719         64,748           BASSETT FURTIUTCE INDS INC         34,655         32,538           BAXTER INTL INC         225,118         267,725           BB&T CORPORATION         387,456         482,942           BEACCON ROOFING SUPPLY INC         170,984         218,602           BEAZER HOMES USA INC         42,890         49,769           BECTON DICKINSON         393,343         451,620           BED BATH & BEYOND INC         112,439         85,750           BED L FUSE INC CL B         17,143         29,510           BENCHMARK ELECTRONICS INC         107,249         162,352           BENEFICIAL BANCORP INC         121,634         159,914           BERKSHIRE HATHAWAY INC-CL B         3,21,220         3,913,476           BERKSHIRE HILLS BANCORP INC         99,540         126,6469           BEST BUY COMPANY INC         107,442         136,203           BIG JOTS INC         202,09         35,689           BIG LOTS INC         211,388         229,259           BIG LARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CLA         208,811         271,597           BIOGEN INC         954,537         997,172           BIO			
BAXTER INTL INC         225,118         267,725           BB&T CORPORATION         387,456         482,942           BEACON ROOFING SUPPLY INC         170,984         218,602           BEAZER HOMES USA INC         42,890         49,769           BECTON DICKINSON         393,343         451,620           BED BATH & BEYOND INC         112,439         85,750           BEL FUSE INC CL B         17,143         29,510           BENCHMARK ELECTRONICS INC         107,249         162,352           BENEFICIAL BANCORP INC         212,634         159,914           BERKSHIRE HATHAWAY INC-CL B         3,321,220         3,913,476           BERKSHIRE HATHAWAY INC         107,442         136,203           BEG S SPORTING GOODS CORP         20,209         35,689           BIG A SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIG LARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707	BARNES & NOBLE INC		64,748
BB&T CORPORATION         387,456         482,942           BEACEN ROOFING SUPPLY INC         170,984         218,602           BEAZER HOMES USA INC         42,890         49,769           BECTON DICKINSON         393,343         451,620           BED BATH & BEYOND INC         112,439         85,750           BEL FUSE INC CL B         17,143         29,510           BENCHMARK ELECTRONICS INC         107,249         162,352           BENEFICIAL BANCORP INC         121,634         159,914           BERKSHIRE HATHAWAY INC-CL B         3321,220         3,913,476           BERKSHIRE HILLS BANCORP INC         99,540         126,469           BEST BUY COMPANY INC         107,442         136,203           BIG S SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIG LARI HOLDINGS INC         42,287         52,082           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         994,537         907,172           BIOGEN INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKS TOKE MITG TRINC CLS A REIT         213,792         233,381	BASSETT FURNITURE INDS INC	34,655	32,558
BEACON ROOFING SUPPLY INC         170,984         218,602           BEAZER HOMES USA INC         42,890         49,769           BECTON DICKINSON         393,343         451,620           BED BATH & BEYOND INC         112,439         85,750           BEL FUSE INC CL B         17,143         29,510           BENCHMARK ELECTRONICS INC         107,249         162,352           BENEFICIAL BANCORP INC         121,634         159,914           BERKSHIRE HATHAWAY INC-CL B         3,321,220         3,913,476           BERST BUY COMPANY INC         107,442         136,203           BIG 5 SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIG ARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,079           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         34,366         57,894           B	BAXTER INTL INC	225,118	267,725
BEAZER HOMES USA INC         42,890         49,769           BECTON DICKINSON         393,343         451,629           BED BATH & BEYOND INC         112,439         85,750           BEL FUSE INC CL B         17,143         29,510           BENCHMARK ELECTRONICS INC         107,249         162,352           BENEHICIAL BANCORP INC         121,634         159,914           BERKSHIRE HATHAWAY INC-CL B         3,321,220         3,913,476           BERKSHIRE HILLS BANCORP INC         99,540         126,469           BEST BUY COMPANY INC         107,442         136,203           BIG JS SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIGLARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK HA R INC         116,627         73,660	BB&T CORPORATION	387,456	482,942
BECTON DICKINSON         393,343         451,620           BED BATH & BEYOND INC         112,439         85,750           BEL FUSE INC CL B         17,143         29,510           BENCHMARK ELECTRONICS INC         107,249         162,352           BENEFICIAL BANCORP INC         121,634         159,914           BERKSHIRE HATHAWAY INC-CL B         3,321,220         3,913,476           BERKSHIRE HATHAWAY INC-CL B         107,442         136,203           BIG 5 SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIG ARI HOLDINGS INC         211,388         229,259           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIACK BOX CORPORATION         18,777         22,707           BLACK BOX CORPORATION         18,777         22,707           BLACK BOX CORPORATION         18,777         22,331           BLUCCK H & RINC         45,766         57,894           BLUCOKA INC         45,766         57,894           BLUCE HILLS BANCORP INC </td <td>BEACON ROOFING SUPPLY INC</td> <td>170,984</td> <td>218,602</td>	BEACON ROOFING SUPPLY INC	170,984	218,602
BED BATH & BEYOND INC         11,439         85,750           BEL FUSE INC CL B         17,143         29,510           BENCHMARK ELECTRONICS INC         107,249         162,352           BENEFICIAL BANCORP INC         121,634         159,914           BERKSHIRE HATHAWAY INC-CL B         3,321,220         3,913,476           BERKSHIRE HILLS BANCORP INC         99,540         126,469           BEST BUY COMPANY INC         107,442         136,203           BIG S SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIGLARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACK BOX CORPORATION         18,777         22,301           BLOCK H& R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BLUE HILLS BANCORP I	BEAZER HOMES USA INC	42,890	49,769
BEL FUSE INC CL B         17,143         29,510           BENCHMARK ELECTRONICS INC         107,249         162,352           BENEFICIAL BANCORP INC         121,634         159,914           BERKSHIRE HATHAWAY INC-CL B         3,321,220         3,913,476           BERKSHIRE HILLS BANCORP INC         99,540         126,469           BEST BUY COMPANY INC         107,442         136,203           BIG 5 SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIG LARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         954,537         907,172           BIOGEN INC         954,537         907,172           BIOTELLEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUEROK RESIDENTIAL GROWTH REIT         16,869         17,699           BNC SANCORP         89,404         100,425           BNC	BECTON DICKINSON	393,343	451,620
BENCHMARK ELECTRONICS INC         107,249         162,352           BENEFICIAL BANCORP INC         121,634         159,914           BERKSHIRE HATHAWAY INC-CL B         3,321,220         3,913,476           BERKSHIRE HILLS BANCORP INC         99,540         126,469           BEST BUY COMPANY INC         107,442         136,203           BIG 5 SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIGLARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACK BOX CORPORATION         18,777         22,738           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         45,766         57,894           BLUC HILLS BANCORP INC         54,238         71,513           BLUE ROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425	BED BATH & BEYOND INC	112,439	85,750
BENEFICIAL BANCORP INC         121,634         159,914           BERKSHIRE HATHAWAY INC-CL B         3,321,220         3,913,476           BERKSHIRE HATHAWAY INC         99,540         126,469           BEST BUY COMPANY INC         107,442         136,203           BIG 5 SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIG LARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELLEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKSOCK INC CL A         538,077         589,837           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUE HILLS BANCORP INC         45,766         57,894           BLUE ROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           <	BEL FUSE INC CL B	17,143	29,510
BERKSHIRE HATHAWAY INC-CL B         3,321,220         3,913,476           BERKSHIRE HILLS BANCORP INC         99,540         126,469           BEST BUY COMPANY INC         107,442         136,203           BIG 5 SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIGLARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO <td>BENCHMARK ELECTRONICS INC</td> <td>107,249</td> <td>162,352</td>	BENCHMARK ELECTRONICS INC	107,249	162,352
BERKSHIRE HILLS BANCORP INC         99,540         126,469           BEST BUY COMPANY INC         107,442         136,203           BIG 5 SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIGLARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUC HILLS BANCORP INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BOEING CO         1,072,112         1,128,369           BOEING CO         1,072,112         1,128,369           BOEING CO         94,055         90,068           BOEING CO	BENEFICIAL BANCORP INC	121,634	159,914
BEST BUY COMPANY INC         107,442         136,203           BIG 5 SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIG LARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELLEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACK ROCK INC CL A         538,077         589,837           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         94,055         90,068           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON PROPERTIES INC REIT	BERKSHIRE HATHAWAY INC-CL B	3,321,220	3,913,476
BIG 5 SPORTING GOODS CORP         20,209         35,689           BIG LOTS INC         211,388         229,259           BIGLARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUC HILLS BANCORP INC         54,238         71,513           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         94,055         90,068           BORG WARNER AUTOMOTIVE INC         133,147         118,596           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON SCIENTIFIC CORP         323,383         376,384           BRADY CORP CL A <td>BERKSHIRE HILLS BANCORP INC</td> <td>99,540</td> <td>126,469</td>	BERKSHIRE HILLS BANCORP INC	99,540	126,469
BIG LOTS INC         211,388         229,259           BIGLARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         45,766         57,894           BLUE ROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BOE BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         2,323,480         2,440,128           BOISE CASCADE CO         94,055         90,068           BORG WARNER AUTOMOTIVE INC         133,147         118,596           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON PROPERTIES INC REIT	BEST BUY COMPANY INC	107,442	136,203
BIGLARI HOLDINGS INC         42,287         52,052           BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACK BOX CORPORATION         18,777         22,707           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         94,055         90,068           BORG WARNER AUTOMOTIVE INC         133,147         118,596           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON SCIENTIFIC CORP         323,383         376,384           BRADY CORP CL A	BIG 5 SPORTING GOODS CORP	20,209	35,689
BIO RAD LABORATORIES CL A         208,811         271,597           BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKROCK INC CL A         538,077         589,837           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         94,055         90,068           BORG WARNER AUTOMOTIVE INC         133,147         118,596           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON SCIENTIFIC CORP         323,383         376,384           BRADY CORP CL A         166,939         184,859           BRIGGS & STRATTON CORP	BIG LOTS INC	211,388	229,259
BIOGEN INC         809,981         783,248           BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKROCK INC CL A         538,077         589,837           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         2,323,480         2,440,128           BOISE CASCADE CO         94,055         90,068           BORG WARNER AUTOMOTIVE INC         133,147         118,596           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON SCIENTIFIC CORP         323,383         376,384           BRADY CORP CL A         166,939         184,859           BRIGGS & STRATTON CORP	BIGLARI HOLDINGS INC	42,287	52,052
BIOGEN INC         954,537         907,172           BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKROCK INC CL A         538,077         589,837           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         94,055         90,068           BORG WARNER AUTOMOTIVE INC         133,147         118,596           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON SCIENTIFIC CORP         323,383         376,384           BRADY CORP CL A         166,939         184,859           BRIGGS & STRATTON CORP         105,322         106,425           BRIGHTCOVE INC         87,913         1,221,922           BRISTOL MYERS SQUIBB CO <td>BIO RAD LABORATORIES CL A</td> <td>208,811</td> <td>271,597</td>	BIO RAD LABORATORIES CL A	208,811	271,597
BIOTELEMETRY INC         42,076         69,129           BLACK BOX CORPORATION         18,777         22,707           BLACKROCK INC CL A         538,077         589,837           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         2,323,480         2,440,128           BOISE CASCADE CO         94,055         90,068           BORG WARNER AUTOMOTIVE INC         133,147         118,596           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON SCIENTIFIC CORP         323,383         376,384           BRADY CORP CL A         166,939         184,859           BRIGGS & STRATTON CORP         105,322         106,425           BRISTOL MYERS SQUIBB CO         87,913         1,221,922           BRISTOL	BIOGEN INC	809,981	783,248
BLACK BOX CORPORATION         18,777         22,707           BLACKROCK INC CL A         538,077         589,837           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         2,323,480         2,440,128           BOISE CASCADE CO         94,055         90,068           BORG WARNER AUTOMOTIVE INC         133,147         118,596           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON SCIENTIFIC CORP         323,383         376,384           BRADY CORP CL A         166,939         184,859           BRIGGS & STRATTON CORP         105,322         106,425           BRIGHTCOVE INC         43,851         27,724           BRISTOL MYERS SQUIBB CO         87,913         1,221,922           BRISTOL MY	BIOGEN INC	954,537	907,172
BLACKROCK INC CL A         538,077         589,837           BLACKSTONE MTG TR INC CLS A REIT         213,792         232,381           BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         2,323,480         2,440,128           BOISE CASCADE CO         94,055         90,068           BORG WARNER AUTOMOTIVE INC         133,147         118,596           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON SCIENTIFIC CORP         323,383         376,384           BRADY CORP CL A         166,939         184,859           BRIGGS & STRATTON CORP         105,322         106,425           BRIGHTCOVE INC         43,851         27,724           BRISTOL MYERS SQUIBB CO         87,913         1,221,922           BRISTOL MYERS SQUIBB CO         895,868         777,252           BROADC	BIOTELEMETRY INC	42,076	69,129
BLACKSTONE MTG TR INC CLS A REIT       213,792       232,381         BLOCK H & R INC       116,627       73,660         BLUCORA INC       45,766       57,894         BLUE HILLS BANCORP INC       54,238       71,513         BLUEROCK RESIDENTIAL GROWTH REIT       16,869       17,699         BMC STOCK HOLDINGS INC       89,404       100,425         BNC BANCORP       89,296       125,335         BOEING CO       1,072,112       1,128,369         BOEING CO       2,323,480       2,440,128         BOISE CASCADE CO       94,055       90,068         BORG WARNER AUTOMOTIVE INC       133,147       118,596         BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROWN FORMAN CORP CLASS B       140,922       117,960	BLACK BOX CORPORATION	18,777	22,707
BLOCK H & R INC         116,627         73,660           BLUCORA INC         45,766         57,894           BLUE HILLS BANCORP INC         54,238         71,513           BLUEROCK RESIDENTIAL GROWTH REIT         16,869         17,699           BMC STOCK HOLDINGS INC         89,404         100,425           BNC BANCORP         89,296         125,335           BOEING CO         1,072,112         1,128,369           BOEING CO         2,323,480         2,440,128           BOISE CASCADE CO         94,055         90,068           BORG WARNER AUTOMOTIVE INC         133,147         118,596           BOSTON PROPERTIES INC REIT         230,562         236,215           BOSTON SCIENTIFIC CORP         323,383         376,384           BRADY CORP CL A         166,939         184,859           BRIGGS & STRATTON CORP         105,322         106,425           BRIGHTCOVE INC         43,851         27,724           BRISTOL MYERS SQUIBB CO         87,913         1,221,922           BROADCOM LTD         637,056         885,618           BROOKLINE BANCORP INC         81,403         116,506           BROWN FORMAN CORP CLASS B         140,922         117,960	BLACKROCK INC CL A	538,077	589,837
BLUCORA INC       45,766       57,894         BLUE HILLS BANCORP INC       54,238       71,513         BLUEROCK RESIDENTIAL GROWTH REIT       16,869       17,699         BMC STOCK HOLDINGS INC       89,404       100,425         BNC BANCORP       89,296       125,335         BOEING CO       1,072,112       1,128,369         BOEING CO       2,323,480       2,440,128         BOISE CASCADE CO       94,055       90,068         BORG WARNER AUTOMOTIVE INC       133,147       118,596         BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROWN FORMAN CORP CLASS B       140,922       117,960	BLACKSTONE MTG TR INC CLS A REIT	213,792	232,381
BLUE HILLS BANCORP INC       54,238       71,513         BLUEROCK RESIDENTIAL GROWTH REIT       16,869       17,699         BMC STOCK HOLDINGS INC       89,404       100,425         BNC BANCORP       89,296       125,335         BOEING CO       1,072,112       1,128,369         BOEING CO       2,323,480       2,440,128         BOISE CASCADE CO       94,055       90,068         BORG WARNER AUTOMOTIVE INC       133,147       118,596         BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BLOCK H & R INC	116,627	73,660
BLUEROCK RESIDENTIAL GROWTH REIT       16,869       17,699         BMC STOCK HOLDINGS INC       89,404       100,425         BNC BANCORP       89,296       125,335         BOEING CO       1,072,112       1,128,369         BOEING CO       2,323,480       2,440,128         BOISE CASCADE CO       94,055       90,068         BORG WARNER AUTOMOTIVE INC       133,147       118,596         BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BLUCORA INC	45,766	57,894
BMC STOCK HOLDINGS INC       89,404       100,425         BNC BANCORP       89,296       125,335         BOEING CO       1,072,112       1,128,369         BOEING CO       2,323,480       2,440,128         BOISE CASCADE CO       94,055       90,068         BORG WARNER AUTOMOTIVE INC       133,147       118,596         BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BLUE HILLS BANCORP INC	54,238	71,513
BNC BANCORP       89,296       125,335         BOEING CO       1,072,112       1,128,369         BOEING CO       2,323,480       2,440,128         BOISE CASCADE CO       94,055       90,068         BORG WARNER AUTOMOTIVE INC       133,147       118,596         BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BLUEROCK RESIDENTIAL GROWTH REIT	16,869	17,699
BOEING CO       1,072,112       1,128,369         BOEING CO       2,323,480       2,440,128         BOISE CASCADE CO       94,055       90,068         BORG WARNER AUTOMOTIVE INC       133,147       118,596         BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BMC STOCK HOLDINGS INC	89,404	100,425
BOEING CO       2,323,480       2,440,128         BOISE CASCADE CO       94,055       90,068         BORG WARNER AUTOMOTIVE INC       133,147       118,596         BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BNC BANCORP	89,296	125,335
BOISE CASCADE CO       94,055       90,068         BORG WARNER AUTOMOTIVE INC       133,147       118,596         BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BOEING CO	1,072,112	1,128,369
BORG WARNER AUTOMOTIVE INC       133,147       118,596         BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BOEING CO	2,323,480	2,440,128
BOSTON PROPERTIES INC REIT       230,562       236,215         BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BOISE CASCADE CO	94,055	90,068
BOSTON SCIENTIFIC CORP       323,383       376,384         BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BORG WARNER AUTOMOTIVE INC	133,147	118,596
BRADY CORP CL A       166,939       184,859         BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BOSTON PROPERTIES INC REIT	230,562	236,215
BRIGGS & STRATTON CORP       105,322       106,425         BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BOSTON SCIENTIFIC CORP	323,383	376,384
BRIGHTCOVE INC       43,851       27,724         BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BRADY CORP CL A	166,939	184,859
BRISTOL MYERS SQUIBB CO       87,913       1,221,922         BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BRIGGS & STRATTON CORP	105,322	106,425
BRISTOL MYERS SQUIBB CO       895,868       777,252         BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BRIGHTCOVE INC	43,851	27,724
BROADCOM LTD       637,056       885,618         BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BRISTOL MYERS SQUIBB CO	87,913	1,221,922
BROOKLINE BANCORP INC       81,403       116,506         BROOKS AUTOMATION INC       91,662       118,961         BROWN FORMAN CORP CLASS B       140,922       117,960	BRISTOL MYERS SQUIBB CO	895,868	777,252
BROOKS AUTOMATION INC         91,662         118,961           BROWN FORMAN CORP CLASS B         140,922         117,960	BROADCOM LTD	637,056	885,618
BROWN FORMAN CORP CLASS B 140,922 117,960	BROOKLINE BANCORP INC	81,403	116,506
BROWN FORMAN CORP CLASS B  Page 4 of 25  140,922  117,960	BROOKS AUTOMATION INC	91,662	118,961
	BROWN FORMAN CORP CLASS B	140,922	117,960

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SECURITY NAME	COST	MARKET
BUFFALO WILD WINGS INC	226,289	225,424
BUILD-A-BEAR WORKSHOP INC	21,917	20,488
BUILDERS FIRSTSOURCE	106,952	99,443
CA INC	123,388	136,198
CABOT OIL & GAS CORP	120,153	131,307
CACI INTERNATIONAL INC CLASS A	222,122	289,619
CAESARS ACQUISITION CO CL A	53,464	58,941
CALAVO GROWERS INC	81,476	97,380
CALERES INC	133,929	146,180
CALIX INC	21,958	25,764
CALLAWAY GOLF CO	104,004	106,531
CAMDEN NATIONAL CORP	30,664	44,494
CAMPBELL SOUP CO	122,302	144,221
CAPELLA EDUCATION CO	69,378	107,116
CAPITAL ONE FINANCIAL CORP	491,865	530,768
CAPSTEAD MTG CORP REIT	100,132	103,795
CARBONITE INC	29,771	28,569
CARDINAL HEALTH INC	329,331	286,441
CARDIOVASCULAR SYSTEM INC	81,573	84,687
CARE.COM INC	15,127	14,389
CAREER EDUCATION CORP	51,801	76,856
CARMAX INC	149,226	165,482
CARNIVAL CORP	300,957	293,306
CATERPILLAR INC	538,747	687,111
CBIZ INC	55,177	69,802
CBRE GROUP INC	134,741	113,049
CBS CORPORATION CLASS B	228,303	318,036
CELGENE CORP	1,234,292	1,133,656
CELGENE CORP	718,172	671,350
CENTENE CORP	130,855	118,106
CENTENE CORP	688,139	576,402
CENTERPOINT ENERGY INC	108,370	144,193
CENTERSTATE BANKS INC	76,614	130,632
CENTRAL GARDEN & PET CL A	62,409	114,176
CENTRAL GARDEN & PET CO	25,012	33,686
CENTURY ALUMINUM COMPANY	34,360	40,737
CENTURY COMMUNITIES INC	19,861	20,139
CENTURYLINK INC	194,419	164,272
CERNER CORP	252,310	177,590
CEVA INC	56,196	67,771
CF INDUSTRIES HOLDINGS INC	149,842	90,662
CH ROBINSON WORLDWIDE INC	126,676	138,168
CHANNELADVISOR CORP	30,072	37,956
CHARLES SCHWAB CORP	473,615	604,996
CHARLES SCHWAB CORP	119,455	118,410
CHART INDUSTRIES INC	106,461 Page 5 of 25	118,866

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SECURITY NAME	COST	MARKET
CHARTER COMMUNICATIONS INC CL A	747,218	775,081
CHARTER FINANCIAL CORP	31,584	40,141
CHASE CORP	41,538	58,485
CHEMED CORP	238,100	243,342
CHEMICAL FINL CORP	278,671	396,795
CHESAPEAKE ENERGY CORP	67,377	68,649
CHEVRON CORPORATION	2,164,927	2,812,795
CHILDRENS PLACE	118,010	206,847
CHIMERA INVESTMENT CORP REIT	267,507	313,457
CHIPOTLE MEXICAN GRILL INC	248,012	143,382
CHUBB LTD	672,450	775,809
CHURCH & DWIGHT INC	128,040	132,570
CIGNA CORP	423,729	416,310
CIGNA CORP	719,102	706,967
CIMAREX ENERGY CO	136,646	159,003
CINCINNATI FINL CORP	121,062	149,834
CINTAS CORP	91,087	108,511
CIRRUS LOGIC INC	263,702	405,505
CISCO SYSTEMS INC	1,843,091	1,900,989
CITI TRENDS INC	44,406	31,143
CITIGROUP INC	1,949,702	2,136,271
CITIZENS FINANCIAL GROUP INC	136,574	228,887
CITIZENS FINANCIAL GROUP INC	344,387	345,611
CITRIX SYSTEMS INC	166,104	176,923
CLEARFIELD INC	17,429	25,213
CLOROX COMPANY	193,478	189,512
CLOUD PEAK ENERGY	30,179	28,695
CME GROUP INC.	415,096	498,658
CME GROUP INC.	482,602	626,697
CMS ENERGY CORP	130,394	150,748
CNO FINANCIAL GROUP, INC	240,166	241,922
COACH INC	114,375	127,893
COEUR MINING INC	194,615	129,269
COGNIZANT TECHNOLOGY SOLUTIONS CORP	512,833	413,277
COHERENT INC	237,899	338,929
COLGATE PALMOLIVE CO	773,965	737,182
COLONY CAPITAL INC REIT	247,655	245,592
COLONY STARWOOD HOMES REIT	148,651	150,215
COMCAST CORP-CL A	1,880,444	2,087,312
COMERICA INC	106,037	158,220
COMFORT SYSTEMS USA INC	121,414	128,771
COMMERCIAL METALS CO	168,078	251,603
COMMUNITY HEALTHCARE TRUST INC REIT	21,360	21,165
CONAGRA BRANDS INC	163,589	209,061
CONCHO RESOURCES	168,133	228,072
CONOCOPHILLIPS Page 6 of 25	827,263	787,298

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SECURITY NAME	COST	MARKET
CONSOL ENERGY INC	300,342	313,939
CONSOLIDATED EDISON INC	260,750	285,878
CONSTELLATION BRANDS INC	312,684	347,860
CONVERGYS CORP	212,023	201,490
COOPER COS INC	112,182	106,357
COOPER-STANDARD HOLDING INC	124,028	195,181
CORCEPT THERAPEUTICS INC	54,306	56,810
CORE-MARK HOLDINGS	253,738	245,198
CORENERGY INFRASTRUCTURE TRUST REIT	35,938	42,135
CORNING INC	223,376	288,546
CORVEL CORP	46,197	36,527
COSTCO WHOLESALE CORP	873,170	883,647
COSTCO WHOLESALE CORP	558,042	592,407
COTY INC	139,163	107,992
COVENANT TRANSN GROUP INC CL A	25,661	25,877
CRA INTERNATIONAL INC	21,958	34,184
CRAFT BREW ALLIANCE INC	22,209	20,787
CROSS COUNTRY HEALTHCARE INC	47,809	54,822
CROWN CASTLE INTL CORP REIT	400,273	402,873
CROWN CASTLE INTL CORP REIT	504,429	520,620
CRYOLIFE INC	36,125	54,329
CSG SYS INTL INC	140,286	163,495
CSRA INC	41,554	45,595
CSS INDUSTRIES INC	31,038	30,156
CSX CORP	326,131	429,795
CUMMINS INC	210,182	278,123
CVS HEALTH CORP	1,384,248	1,058,578
CYBEROPTICS CORP	17,003	17,330
CYNOSURE INC-A	96,609	115,094
CYS INVESTMENTS INC REIT	116,368	115,850
D R HORTON INC	130,416	116,426
DANAHER CORP	536,368	591,584
DANAHER CORP	1,657,993	1,829,240
DARDEN RESTAURANTS INC	90,933	110,244
DARLING INGREDIENTS INC	256,550	219,806
DATALINK CORP	18,970	20,144
DAVITA INC	162,514	134,692
DAWSON GEOPHYSICAL CO	15,142	16,779
DEAN FOODS CO	178,251	214,816
DEERE & CO	299,193	391,140
DELPHI AUTOMOTIVE PLC	297,115	233,435
DELTA AIR LINES INC	483,870	473,651
DELUXE CORP	204,254	243,904
DENTSPLY SIRONA INC	175,000	170,015
DEVON ENERGY CORPORATION	247,983	308,775
DEVRY EDUCATION GROUP INC Page 7 of 25	133,005	183,050
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DIAMOND OFFSHORE DRILLING INC         165,910         115,793           DIGI INTL INC         40,215         42,831           DIGITAL REALTY TRUST INC REIT         196,901         204,774           DIGITAL REALTY TRUST INC REIT         196,901         204,774           DIGITAL GLOBE INC         163,444         178,318           DISCOVER FINL SVCS         278,003         349,781           DISCOVERY COMMUNICATIONS CL A         45,669         42,376           DISCOVERY COMMUNICATIONS CL C         73,905         71,476           DISNEY WALT CO NEW         2,126,338         1,946,725           DOLLAR GENERAL CORP         216,397         237,320           DOLLAR GENERAL CORP         1,168,177         1,140,678           DOLLAR TREE INC         185,119         222,510           DOMINION RESOURCES INC         221,648         585,454           DOMINION RESOURCES INC         221,648         585,454           DOMTAR CORPORATION         261,966         251,158           DOWAL REVERSOURCES INC         221,442         249,472           DOWCHE CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,69         811,780           DEWE WILL STRIES INC         332,006         810,116	SECURITY NAME	COST	MARKET
DIGI INTL INC         40,215         42,831           DIGITAL REALTY TRUST INC REIT         196,901         204,774           DIGITALGLOBE INC         163,444         178,318           DIPLOMAT PHARMACY INC         130,206         57,406           DISCOVER FINL SVCS         278,003         349,781           DISCOVERY COMMUNICATIONS CL A         45,669         42,376           DISCOVERY COMMUNICATIONS CL C         73,905         71,476           DISNOY WALT CO NEW         2,126,338         1,946,725           DOLLAR GENERAL CORP         216,397         237,320           DOLLAR GENERAL CORP         1,168,177         1,140,678           DOLLAR GENERAL CORP         1,168,177         1,140,678           DOMINION RESOURCES INC         221,648         585,454           DOMTAR CORPORATION         261,966         251,158           DOWAD SOMAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DEW WIDUSTRIES INC         265,500         258,787           DTE ENERGY CO         181,087         217,313           DU PONT E I DE EMOURS & CO         332,006         810,116			
DIGITALGLOBE INC         163,444         178,318           DIPLOMAT PHARMACY INC         130,206         57,406           DISCOVER FINL SVCS         278,003         349,781           DISCOVERY COMMUNICATIONS CL A         45,669         42,376           DISCOVERY COMMUNICATIONS CL C         73,905         71,476           DISNEY WALT CO NEW         2,126,338         1,946,725           DOLBY LABORATORIES INC         272,142         249,720           DOLLAR GENERAL CORP         1,168,177         1,140,678           DOLLAR GENERAL CORP         1,168,177         1,140,678           DOLLAR TREE INC         185,119         222,510           DOMINION RESOURCES INC         221,648         585,454           DOMINION RESOURCES INC         261,966         251,158           DOMIAR CORPORATION         261,966         251,158           DOWGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         355,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116	DIGI INTL INC	40,215	
DIGITALGLOBE INC         163,444         178,318           DIPLOMAT PHARMACY INC         130,206         57,408           DISCOVERY FINL SVCS         278,003         349,781           DISCOVERY COMMUNICATIONS CL A         45,669         42,376           DISCOVERY COMMUNICATIONS CL C         73,905         71,476           DISNEY WALT CO NEW         2,126,338         1,946,725           DOLBY LABORATORIES INC         272,142         249,720           DOLLAR GENERAL CORP         1168,177         1,140,678           DOLLAR GENERAL CORP         1168,177         1,140,678           DOLLAR TREE INC         221,648         585,454           DOMINION RESOURCES INC         221,648         585,454           DOMTAR CORPORATION         261,966         221,144           DOWALD PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DEWE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DU	DIGITAL REALTY TRUST INC REIT	196,901	204,774
DISCOVER FINL SVCS         278,003         349,781           DISCOVERY COMMUNICATIONS CL A         45,669         42,376           DISCOVERY COMMUNICATIONS CL C         73,905         71,476           DISCOVERY WALT CO NEW         2,126,338         1,946,725           DOLBY LABORATORIES INC         272,142         249,720           DOLLAR GENERAL CORP         216,397         237,320           DOLLAR GENERAL CORP         1,168,177         1,140,678           DOLLAR TREE INC         188,119         222,510           DOMINION RESOURCES INC         221,648         585,454           DOMTAR CORPORATION         261,966         251,158           DORMAN PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DEEWINGUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         265,500         25,875           DUN	DIGITALGLOBE INC	163,444	
DISCOVERY COMMUNICATIONS CL A         45,669         42,376           DISCOVERY COMMUNICATIONS CL C         73,905         71,476           DISNEY WALT CO NEW         2,126,338         1,946,725           DOLBY LABORATORIES INC         272,142         249,720           DOLLAR GENERAL CORP         1,168,177         1,140,678           DOLLAR TREE INC         188,119         222,510           DOMINION RESOURCES INC         221,648         858,454           DOMINION RESOURCES INC         221,648         858,454           DOMINON RESOURCES INC         261,966         251,158           DORMAN PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY COR         265,302         679,641           DULUTH HOLDINGS INC         265,302         679,641           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP	DIPLOMAT PHARMACY INC	130,206	57,406
DISCOVERY COMMUNICATIONS CL A         45,669         42,376           DISCOVERY COMMUNICATIONS CL C         73,905         71,476           DISNEY WALT CO NEW         2,126,338         1,946,725           DOLBY LABORATORIES INC         272,142         249,720           DOLLAR GENERAL CORP         1,168,177         1,140,678           DOLLAR TREE INC         185,119         222,510           DOMINION RESOURCES INC         221,648         585,454           DOMINION COPPORATION         261,966         251,158           DORMAN PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY COR         265,302         679,641           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         233,000         259,738           DYNEX CAP INC REIT         36,452         374,69           EA	DISCOVER FINL SVCS	278,003	349,781
DISNEY WALT CO NEW         2,126,338         1,946,725           DOLDEY LABORATORIES INC         272,142         249,720           DOLLAR GENERAL CORP         216,397         237,320           DOLLAR GENERAL CORP         1,68,177         1,140,678           DOLLAR TREE INC         185,119         222,510           DOMINION RESOURCES INC         221,648         585,454           DOMTAR CORPORATION         261,966         251,158           DORMAN PRODUCTS         190,767         227,444           DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DUKE ENERGY CORP         265,302         679,641           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP </td <td>DISCOVERY COMMUNICATIONS CL A</td> <td>45,669</td> <td></td>	DISCOVERY COMMUNICATIONS CL A	45,669	
DOLBY LABORATORIES INC         272,142         249,720           DOLLAR GENERAL CORP         216,397         237,320           DOLLAR GENERAL CORP         1,168,177         1,146,678           DOLLAR TREE INC         185,119         222,510           DOMINION RESOURCES INC         221,648         585,454           DOMTAR CORPORATION         261,966         251,158           DORMAN PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,887           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP <td>DISCOVERY COMMUNICATIONS CL C</td> <td>73,905</td> <td>71,476</td>	DISCOVERY COMMUNICATIONS CL C	73,905	71,476
DOLLAR GENERAL CORP         216,397         237,320           DOLLAR TERERAL CORP         1,168,177         1,140,678           DOLLAR TREE INC         185,119         222,510           DOMINION RESOURCES INC         221,648         585,454           DOMTAR CORPORATION         261,966         251,158           DORMAN PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOW CRP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU FONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         265,302         679,641           DULUTH HOLDINGS INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         60,817<	DISNEY WALT CO NEW	2,126,338	1,946,725
DOLLAR GENERAL CORP         1,168,177         1,140,678           DOLLAR TREE INC         185,119         222,510           DOMINION RESOURCES INC         221,648         585,454           DOMTAR CORPORATION         261,966         251,158           DORMAN PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DVOM & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYOM ET INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EBAY INC         3	DOLBY LABORATORIES INC	272,142	249,720
DOLLAR TREE INC         185,119         222,510           DOMINION RESOURCES INC         221,648         585,454           DOMTAR CORPORATION         261,966         251,158           DORMAN PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         306,143 </td <td>DOLLAR GENERAL CORP</td> <td>216,397</td> <td>237,320</td>	DOLLAR GENERAL CORP	216,397	237,320
DOMINION RESOURCES INC         221,648         585,454           DOMTAR CORPORATION         261,966         251,158           DORMAN PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         100,003         65,866           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,	DOLLAR GENERAL CORP	1,168,177	1,140,678
DOMTAR CORPORATION         261,966         251,158           DORMAN PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOW CR CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUL E ENERGY CORP         265,302         679,641           DUL TH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         108,635         134,199           EARTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60	DOLLAR TREE INC	185,119	222,510
DORMAN PRODUCTS         190,767         227,144           DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304         286,520	DOMINION RESOURCES INC	221,648	585,454
DOUGLAS DYNAMICS         50,083         76,655           DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,817         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304 <td>DOMTAR CORPORATION</td> <td>261,966</td> <td>251,158</td>	DOMTAR CORPORATION	261,966	251,158
DOVER CORP         130,435         153,232           DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,817         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304         286,520           EDWARDS LIFESCIENCES CORP <td< td=""><td>DORMAN PRODUCTS</td><td>190,767</td><td>227,144</td></td<>	DORMAN PRODUCTS	190,767	227,144
DOW CHEMICAL COMPANY         731,169         811,780           DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,817         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304         286,520           EDWARDS LIFESCIENCES CORP         203,687         246,993           ELDORADO RESORTS INC         18,174         16,629           ELECTRO SCIENTIFIC INDS INC<	DOUGLAS DYNAMICS	50,083	76,655
DREW INDUSTRIES INC         155,338         273,577           DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,817         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304         286,520           EDWARDS LIFESCIENCES CORP         203,687         246,993           ELDORADO RESORTS INC         33,030         56,511           ELECTRO SCIENTIFIC INDS INC </td <td>DOVER CORP</td> <td>130,435</td> <td>153,232</td>	DOVER CORP	130,435	153,232
DTE ENERGY CO         181,087         217,313           DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,817         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304         286,520           EDWARDS LIFESCIENCES CORP         203,687         246,993           ELDORADO RESORTS INC         33,030         56,511           ELECTRONIC ARTS INC         288,855         299,052           ELLIE MAE INC <t< td=""><td>DOW CHEMICAL COMPANY</td><td>731,169</td><td>811,780</td></t<>	DOW CHEMICAL COMPANY	731,169	811,780
DU PONT E I DE NEMOURS & CO         332,006         810,116           DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,817         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304         286,520           EDWARDS LIFESCIENCES CORP         203,687         246,993           ELDORADO RESORTS INC         33,030         56,511           ELECTRONIC ARTS INC         288,855         299,052           ELLIE MAE INC         275,626         283,424           ELLIS PERRY INTL INC	DREW INDUSTRIES INC	155,338	273,577
DUKE ENERGY CORP         265,302         679,641           DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,817         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304         286,520           EDWARDS LIFESCIENCES CORP         203,687         246,993           ELDORADO RESORTS INC         33,030         56,511           ELECTRO SCIENTIFIC INDS INC         18,174         16,629           ELECTRONIC ARTS INC         288,855         299,052           ELLIE MAE INC         275,626         283,424           ELLIS PERRY INTL INC	DTE ENERGY CO	181,087	217,313
DULUTH HOLDINGS INC         26,560         25,857           DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,817         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304         286,520           EDWARDS LIFESCIENCES CORP         203,687         246,993           ELDORADO RESORTS INC         33,030         56,511           ELECTRO SCIENTIFIC INDS INC         18,174         16,629           ELECTRONIC ARTS INC         288,855         299,052           ELLIE MAE INC         275,626         283,424           ELLIS PERRY INTL INC         32,127         36,194           EMC INSURANCE GROUP INC	DU PONT E I DE NEMOURS & CO	332,006	810,116
DUN & BRADSTREET CORP         41,967         45,374           DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,817         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304         286,520           EDWARDS LIFESCIENCES CORP         203,687         246,993           ELDORADO RESORTS INC         33,030         56,511           ELECTRO SCIENTIFIC INDS INC         18,174         16,629           ELECTRONIC ARTS INC         288,855         299,052           ELLIE MAE INC         275,626         283,424           ELLIS PERRY INTL INC         32,127         36,194           EMC INSURANCE GROUP INC         319,954         440,339	DUKE ENERGY CORP	265,302	679,641
DYCOM INDUSTRIES INC         253,000         259,738           DYNEX CAP INC REIT         36,420         37,169           E TRADE FINANCIAL CORP         108,635         134,199           EARTHLINK HLDGS CORP         100,003         65,886           EASTMAN CHEMICAL CO         135,279         138,537           EATON CORP PLC         306,143         381,675           EBAY INC         356,535         375,311           EBIX INCORPORATED         72,841         147,018           ECHO GLOBAL LOGISTICS INC         60,817         68,512           ECOLAB INC         385,830         377,800           EDISON INTERNATIONAL         243,304         286,520           EDWARDS LIFESCIENCES CORP         203,687         246,993           ELDORADO RESORTS INC         33,030         56,511           ELECTRO SCIENTIFIC INDS INC         18,174         16,629           ELECTRONIC ARTS INC         288,855         299,052           ELLIE MAE INC         275,626         283,424           ELLIS PERRY INTL INC         32,127         36,194           EMC INSURANCE GROUP INC         17,923         19,446           EMCOR GROUP INC         319,954         440,339	DULUTH HOLDINGS INC	26,560	25,857
DYNEX CAP INC REIT       36,420       37,169         E TRADE FINANCIAL CORP       108,635       134,199         EARTHLINK HLDGS CORP       100,003       65,886         EASTMAN CHEMICAL CO       135,279       138,537         EATON CORP PLC       306,143       381,675         EBAY INC       356,535       375,311         EBIX INCORPORATED       72,841       147,018         ECHO GLOBAL LOGISTICS INC       60,817       68,512         ECOLAB INC       385,830       377,800         EDISON INTERNATIONAL       243,304       286,520         EDWARDS LIFESCIENCES CORP       203,687       246,993         ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	DUN & BRADSTREET CORP	41,967	45,374
E TRADE FINANCIAL CORP       108,635       134,199         EARTHLINK HLDGS CORP       100,003       65,886         EASTMAN CHEMICAL CO       135,279       138,537         EATON CORP PLC       306,143       381,675         EBAY INC       356,535       375,311         EBIX INCORPORATED       72,841       147,018         ECHO GLOBAL LOGISTICS INC       60,817       68,512         ECOLAB INC       385,830       377,800         EDISON INTERNATIONAL       243,304       286,520         EDWARDS LIFESCIENCES CORP       203,687       246,993         ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	DYCOM INDUSTRIES INC	253,000	259,738
EARTHLINK HLDGS CORP       100,003       65,886         EASTMAN CHEMICAL CO       135,279       138,537         EATON CORP PLC       306,143       381,675         EBAY INC       356,535       375,311         EBIX INCORPORATED       72,841       147,018         ECHO GLOBAL LOGISTICS INC       60,817       68,512         ECOLAB INC       385,830       377,800         EDISON INTERNATIONAL       243,304       286,520         EDWARDS LIFESCIENCES CORP       203,687       246,993         ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	DYNEX CAP INC REIT	36,420	37,169
EASTMAN CHEMICAL CO       135,279       138,537         EATON CORP PLC       306,143       381,675         EBAY INC       356,535       375,311         EBIX INCORPORATED       72,841       147,018         ECHO GLOBAL LOGISTICS INC       60,817       68,512         ECOLAB INC       385,830       377,800         EDISON INTERNATIONAL       243,304       286,520         EDWARDS LIFESCIENCES CORP       203,687       246,993         ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	E TRADE FINANCIAL CORP	108,635	134,199
EATON CORP PLC       306,143       381,675         EBAY INC       356,535       375,311         EBIX INCORPORATED       72,841       147,018         ECHO GLOBAL LOGISTICS INC       60,817       68,512         ECOLAB INC       385,830       377,800         EDISON INTERNATIONAL       243,304       286,520         EDWARDS LIFESCIENCES CORP       203,687       246,993         ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	EARTHLINK HLDGS CORP	100,003	65,886
EBAY INC       356,535       375,311         EBIX INCORPORATED       72,841       147,018         ECHO GLOBAL LOGISTICS INC       60,817       68,512         ECOLAB INC       385,830       377,800         EDISON INTERNATIONAL       243,304       286,520         EDWARDS LIFESCIENCES CORP       203,687       246,993         ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	EASTMAN CHEMICAL CO	135,279	138,537
EBIX INCORPORATED       72,841       147,018         ECHO GLOBAL LOGISTICS INC       60,817       68,512         ECOLAB INC       385,830       377,800         EDISON INTERNATIONAL       243,304       286,520         EDWARDS LIFESCIENCES CORP       203,687       246,993         ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	EATON CORP PLC	306,143	381,675
ECHO GLOBAL LOGISTICS INC       60,817       68,512         ECOLAB INC       385,830       377,800         EDISON INTERNATIONAL       243,304       286,520         EDWARDS LIFESCIENCES CORP       203,687       246,993         ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	EBAY INC	356,535	375,311
ECOLAB INC385,830377,800EDISON INTERNATIONAL243,304286,520EDWARDS LIFESCIENCES CORP203,687246,993ELDORADO RESORTS INC33,03056,511ELECTRO SCIENTIFIC INDS INC18,17416,629ELECTRONIC ARTS INC288,855299,052ELLIE MAE INC275,626283,424ELLIS PERRY INTL INC32,12736,194EMC INSURANCE GROUP INC17,92319,446EMCOR GROUP INC319,954440,339	EBIX INCORPORATED	72,841	147,018
EDISON INTERNATIONAL       243,304       286,520         EDWARDS LIFESCIENCES CORP       203,687       246,993         ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	ECHO GLOBAL LOGISTICS INC	60,817	68,512
EDWARDS LIFESCIENCES CORP       203,687       246,993         ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	ECOLAB INC	385,830	377,800
ELDORADO RESORTS INC       33,030       56,511         ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	EDISON INTERNATIONAL	243,304	286,520
ELECTRO SCIENTIFIC INDS INC       18,174       16,629         ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	EDWARDS LIFESCIENCES CORP	203,687	246,993
ELECTRONIC ARTS INC       288,855       299,052         ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	ELDORADO RESORTS INC	33,030	56,511
ELLIE MAE INC       275,626       283,424         ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	ELECTRO SCIENTIFIC INDS INC	18,174	16,629
ELLIS PERRY INTL INC       32,127       36,194         EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	ELECTRONIC ARTS INC	288,855	299,052
EMC INSURANCE GROUP INC       17,923       19,446         EMCOR GROUP INC       319,954       440,339	ELLIE MAE INC	275,626	283,424
EMCOR GROUP INC 319,954 440,339	ELLIS PERRY INTL INC	32,127	36,194
	EMC INSURANCE GROUP INC	17,923	19,446
EMERGENT BIOSOLUTIONS INC 110.731 117.337	EMCOR GROUP INC	319,954	440,339
	EMERGENT BIOSOLUTIONS INC	110,731	117,337
EMERSON ELEC CO 278,011 444,662 Page 8 of 25	EMERSON ELEC CO	378,011	444,662

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SECURITY NAME	COST	MARKET
EMPIRE DIST ELEC CO	156,595	156,814
ENDO INTERNATIONAL PLC	156,140	42,328
ENERGY RECOVERY INC	37,839	38,243
ENGILITY HOLDINGS INC	53,204	61,334
ENNIS INC.	57,679	50,506
ENTERGY CORP	150,457	162,956
ENTERPRISE FINANCIAL SERVICE	61,148	91,934
ENVISION HEALTHCARE CO	89,782	83,859
ENZO BIOCHEM INC	31,086	33,631
EOG RES INC	636,629	744,905
EPLUS INC	48,954	66,125
EQT CORPORATION	128,561	133,743
EQUIFAX INC	155,843	172,498
EQUINIX INC REIT	279,270	329,175
EQUITY RESIDENTIAL PPTYS TR REIT	348,101	284,729
ESSEX PROPERTY TRUST INC REIT	179,996	187,860
ETHAN ALLEN INTERIORS INC	73,711	99,679
EVERSOURCE ENERGY	198,294	214,845
EVOLENT HEALTH INC CL A	40,786	25,974
EXACT SCIENCES	235,342	158,556
EXACTECH INC	27,814	40,650
EXELON CORP	324,815	405,757
EXLSERVICE HOLDINGS	161,849	186,224
EXPEDIA INC	189,925	169,240
EXPEDITORS INTL WASH INC	100,349	109,045
EXPRESS INC	136,316	77,407
EXPRESS SCRIPTS HLDG	665,516	534,086
EXTRA SPACE STORAGE INC REIT	121,230	108,831
EXXONMOBIL CORP	982,017	4,731,068
EZCORP INC CL A	42,040	64,347
F5 NETWORKS INC	89,192	106,369
FABRINET	154,362	158,581
FACEBOOK INC-A	3,115,326	3,406,631
FACEBOOK INC-A	3,231,179	3,497,520
FAIR ISAAC CORP	401,190	388,061
FARMER BROS CO	19,406	24,919
FARMERS CAPITAL BANK CORP	20,943	26,786
FARMLAND PARTNERS INC REIT	15,211	15,791
FASTENAL CO	140,239	168,705
FEDERAL AGRIC MTG CORP-CL C	29,621	56,812
FEDERAL REALTY INVESTMENT TR REIT	127,460	120,083
FEDERATED GOVT OBLIG-I #5	2,263,975	2,263,975
FEDEX CORPORATION	493,994	591,930
FEDEX CORPORATION	947,159	1,126,510
FERRARI NV	433,306	563,958
FIDELITY NATL INFORMATION SVCS	311,260	321,394
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SECURITY NAME	COST	MARKET
FIFTH THIRD BANCORP	192,985	265,897
FINISH LINE INC CL A	85,593	86,432
FIRST BANCORP INC	48,151	75,137
FIRST BANCORP N C	37,600	54,416
FIRST BANCORP PR	64,519	94,437
FIRST COMMUNITY BANCSHARES	60,171	93,133
FIRST COMWLTH FINL CORP	22,326	32,983
FIRST CONNECTICUT BANCORP INC	18,821	25,232
FIRST CTZNS BANCSHARES INC CL A	262,399	363,520
FIRST DEFIANCE FINL CORP	36,644	48,051
FIRST FINANCIAL CORP INDIANA	22,206	29,990
FIRST MERCHANTS CORP	115,874	164,041
FIRST MIDWEST BANCORP INC	155,648	218,113
FIRST NORTHWEST BANCORP	17,905	20,935
FIRST REPUBLIC BANK	111,557	114,622
FIRST SOLAR INC	39,823	25,126
FIRSTENERGY CORP	160,967	161,292
FISERV INC	255,086	280,685
FIVE BELOW	208,320	223,776
FIVE9 INC	49,766	55,398
FIVEPRIME THERAPEUTICS INC	132,896	147,925
FLAGSTAR BANCORP	55,973	65,141
FLEXSTEEL INDS	34,140	48,164
FLIR SYSTEMS INC	37,781	52,548
FLOWSERVE CORP	61,745	66,357
FLUOR CORP	70,892	78,833
FMC CORP	75,677	103,109
FMC TECHNOLOGIES INC	102,773	108,473
FOOT LOCKER INC	106,670	118,599
FORD MOTOR CO DEL	733,976	600,775
FORMFACTOR INC	65,724	73,898
FORTIVE CORP	163,522	192,532
FORTIVE CORP	686,985	801,769
FORTUNE BRANDS HOME & SECURITY, INC	106,310	99,970
FOUR CORNERS PROPERTY TRUST INC REIT	124,869	122,669
FRANKLIN RESOURCES INC	190,373	187,886
FREDS INC	47,717	63,884
FREEPORT-MCMORAN INC	196,649	218,730
FRESH DEL MONTE PRODUCE INC	147,967	196,866
FRONTIER COMMUNICATIONS CORP	61,354	50,190
FULTON FINL CORP PA	206,610	287,508
GALLAGHER ARTHUR J & CO	96,420	103,920
GAMESTOP CORP CL A	83,760	84,621
GAP INC	66,944	55,270
GARMIN LTD	43,082	59,449
GCP APPLIED TECHNOLOGIES INC	186,377	191,744
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GENERAL DYNAMICS CORP         551,176         632,454           GENERAL ELECTRIC CORP         429,008         3,537,936           GENERAL GROWTH PROPERTIES INC REIT         207,351         178,907           GENERAL MLS INC         421,897         448,327           GENERAL MOTORS CO         612,933         606,913           GENESCO INC         139,564         137,800           GENUINE PARTS CO         168,432         178,373           GETTY REALTY CORP NEW REIT         57,071         65,382           GIRAM RINDUSTRIES INC         112,819         139,940           GIGAMON INC         123,556         139,930           GILALKOS CORP         39,740         39,068           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLD RESOURCE CORP         35,395         28,110           GOLD RESOURCE SORP         35,395         28,110           GOLD REAR TIRE & RUBBER CO         118,683         112,676           GOVERNIBENT PROPERTIES INCOME TR REIT         144,585         136,493           GRAHAM HOLDINGS COMPANY         236,473         218,603 <t< th=""><th>SECURITY NAME</th><th>COST</th><th>MARKET</th></t<>	SECURITY NAME	COST	MARKET
GENERAL ELECTRIC CORP         429,008         3,537,936           GENERAL GROWTH PROPERTIES INC REIT         207,351         178,907           GENERAL MLS INC         421,897         444,8327           GENERAL MOTORS CO         612,933         606,913           GENERAL MOTORS CO         139,564         137,800           GENUINE PART'S CO         168,432         178,373           GETTY REALTY CORP NEW REIT         57,071         65,382           GIBRALTAR INDUSTRIES INC         117,819         136,945           GIGAMON INC         123,556         139,930           GILEAD SCIENCES INC         1,804,506         1,194,741           GLAUKOS CORP         39,740         39,086           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLD RESOURCE CORP         35,396         12,12,105	GENERAL DYNAMICS CORP		632,454
GENERAL MLS INC         421,897         448,327           GENERAL MOTORS CO         612,933         606,913           GENESCO INC         139,564         137,800           GENUINE PARTS CO         168,432         178,373           GETTY REALTY CORP NEW REIT         57,071         65,382           GIBRAL TAR INDUSTRIES INC         117,819         136,945           GIGAMON INC         123,556         139,930           GILEAD SCIENCES INC         1,804,506         1,194,741           GLAUKOS CORP         39,40         39,068           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLD MAN SACHS GROUP INC         893,190         1,121,105           GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRATI MASTUCTION INC         182,508         229,020	GENERAL ELECTRIC CORP		3,537,936
GENERAL MOTORS CO         612,933         606,913           GENESCO INC         139,564         137,800           GENUINE PARTS CO         168,432         178,373           GETTY REALTY CORP NEW REIT         57,071         65,382           GIBRAL TAR INDUSTRIES INC         117,819         136,945           GILEAD SCIENCES INC         1,804,506         1,194,741           GLAWKOS CORP         39,740         39,068           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLD RESOURCE CORP         35,395         28,110           GOLD RAS GROUP INC         893,190         1,121,105           GOVERNMERT BRE RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAINGER W WINC         155,596         173,955           GRAINGER W WINC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANITE CONSTRUCTION INC         182,508         229,020           GREAT WESTERN BANCORP INC         168,689         262,761	GENERAL GROWTH PROPERTIES INC REIT	207,351	178,907
GENESCO INC         139,564         137,800           GENUINE PARTS CO         168,432         178,373           GETTY REALTY CORP NEW REIT         57,071         65,382           GIBRALTAR INDUSTRIES INC         117,819         136,945           GIGAMON INC         123,556         139,930           GILEAD SCIENCES INC         1,804,506         1,194,741           GLAUKOS CORP         39,740         39,068           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,829           GOLD RESOURCE CORP         35,395         28,110           GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANTIE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREEN DOT CORP CLA         89,605         111,486 <td>GENERAL MLS INC</td> <td>421,897</td> <td>448,327</td>	GENERAL MLS INC	421,897	448,327
GENUINE PARTS CO         168,432         178,373           GETTY REALTY CORP NEW REIT         57,071         65,382           GIBRALTAR INDUSTRIES INC         117,819         136,945           GIGAMON INC         123,556         139,930           GILEAD SCIENCES INC         1,804,506         1,194,741           GLAUKOS CORP         39,740         39,086           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAINGER W W INC         155,596         173,955           GRAINGER W W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANITE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         196,01         103,688	GENERAL MOTORS CO	612,933	606,913
GETTY REALTY CORP NEW REIT         57,071         65,382           GIBRALTAR INDUSTRIES INC         117,819         136,945           GIGAMON INC         123,556         139,930           GILEAD SCIENCES INC         1,804,506         1,194,741           GLAUKOS CORP         39,740         39,068           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOODWEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W W INC         155,596         173,955           GRAMIEC Y PROPERTY TRUST REIT         196,020         192,046           GRANITE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         168,689         262,761           GREEN PLAINS INC         19,220         174,819	GENESCO INC	139,564	137,800
GIBRALTAR INDUSTRIES INC         117,819         136,945           GIGAMON INC         123,556         139,930           GILEAD SCIENCES INC         1,804,506         1,194,741           GLAUKOS CORP         39,740         39,068           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W WINC         155,596         173,955           GRAMECY PROPERTY TRUST REIT         196,020         192,046           GRANITE CONSTRUCTION INC         182,508         229,020           GREAT JAX CORP REIT         44,510         45,304           GREEN DOT CORP CLA         39,605         111,486           GREEN PLAINS INC         99,601         103,658           GREEN PLAINS INC         192,202         174,819           GRUPON INC         144,848         143,112	GENUINE PARTS CO	168,432	178,373
GIGAMON INC         123,556         139,930           GILEAD SCIENCES INC         1,804,506         1,194,741           GLAUKOS CORP         39,740         39,068           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOOVERNMENT PROPERTIES INCOME TR REIT         148,583         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W W INC         155,596         173,955           GRAMIRCE V PROPERTY TRUST REIT         196,020         192,046           GRAMITE CONSTRUCTION INC         182,508         229,020           GREAT ALAX CORP REIT         44,510         45,304           GREEN DOT CORP REIT         44,510         45,304           GREEN DOT CORP CLA         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GRIFFON CORP         65,718         99,227 <td>GETTY REALTY CORP NEW REIT</td> <td>57,071</td> <td>65,382</td>	GETTY REALTY CORP NEW REIT	57,071	65,382
GILEAD SCIENCES INC         1,804,506         1,194,741           GLAUKOS CORP         39,740         39,068           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANTIE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP REIT         44,510         125,481           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GREENBRIER COS INC         111,040         125,481           GROUP I AUTOMOTIVE INC         192,220         174,819	GIBRALTAR INDUSTRIES INC	117,819	136,945
GLAUKOS CORP         39,740         39,068           GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANTIE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GREENBRIER COS INC         111,040         125,481           GROUPON INC         192,220         174,819           GROUPON INC         140,405         59,610	GIGAMON INC	123,556	139,930
GLOBAL BRASS & COPPER HOLDINGS         68,228         77,930           GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W WINC         155,596         173,955           GRAMINGE W WINC         155,596         173,955           GRAMITE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREEN BANCORP INC         168,689         262,761           GREEN PLAINS INC         99,601         103,658           GREEN PLAINS INC         99,601         103,658           GREEN PLAINS INC         111,040         125,481           GRIFFON CORP         65,718         99,927           GROUP 1 AUTOMOTIVE INC         192,220         174,819           GROUPON INC         214,848         143,112           HACKETT GROUP         36,429         42,649           HALLIBURT	GILEAD SCIENCES INC	1,804,506	1,194,741
GLOBAL PAYMENTS INC         146,600         138,820           GOLD RESOURCE CORP         35,395         28,110           GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANTE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GRIFFON CORP         65,718         99,927           GROUP 1 AUTOMOTIVE INC         192,220         174,819           GROUPON INC         144,848         143,112           HACKETT GROUP         36,429         42,649           HALLIBURTON CO         226,313         352,946 <td< td=""><td>GLAUKOS CORP</td><td>39,740</td><td>39,068</td></td<>	GLAUKOS CORP	39,740	39,068
GOLD RESOURCE CORP         35,395         28,110           GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANITE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GRIFFON CORP         65,718         99,927           GROUP I AUTOMOTIVE INC         192,220         174,819           GROUPON INC         214,848         143,112           HACKETT GROUP         36,429         42,649           HALLIBURTON CO         424,059         592,610           HANCOCK HOLDING CO         226,313         352,946           <	GLOBAL BRASS & COPPER HOLDINGS	68,228	77,930
GOLDMAN SACHS GROUP INC         893,190         1,121,105           GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANITE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GRIFFON CORP         65,718         99,927           GROUPO I AUTOMOTIVE INC         192,220         174,819           GROUPON INC         214,848         143,112           HACKETT GROUP         36,429         42,649           HANCESTRANDS INC         100,126         121,931           HARMAN INTERNATIONAL INDS         78,623         81,925	GLOBAL PAYMENTS INC	146,600	138,820
GOODYEAR TIRE & RUBBER CO         118,683         112,676           GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W WINC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANTIE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GRIFFON CORP         65,718         99,927           GROUP 1 AUTOMOTIVE INC         192,220         174,819           GROUPON INC         192,220         174,819           GROUPON INC         214,848         143,112           HACKETT GROUP         36,429         42,649           HALIBURTON CO         424,059         592,610           HANESBRANDS INC         100,126         121,931           HARMAN INTERNATIONAL INDS         78,623         81,925           HARRIS CO	GOLD RESOURCE CORP	35,395	28,110
GOVERNMENT PROPERTIES INCOME TR REIT         148,585         136,849           GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANITE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GRIFFON CORP         65,718         99,927           GROUP 1 AUTOMOTIVE INC         192,220         174,819           GROUPON INC         1214,848         143,112           HACKETT GROUP         36,429         42,649           HALLIBURTON CO         424,059         592,610           HANCOCK HOLDING CO         226,313         352,946           HANESBRANDS INC         100,126         121,931           HARMAN INTERNATIONAL INDS         78,623         81,925           HARRIS CORP DEL         128,471         166,206           HASBRO INC<	GOLDMAN SACHS GROUP INC	893,190	1,121,105
GRAHAM HOLDINGS COMPANY         236,473         218,603           GRAINGER W W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANITE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GRIFFON CORP         65,718         99,927           GROUP 1 AUTOMOTIVE INC         192,220         174,819           GROUPON INC         192,220         174,819           HACKETT GROUP         36,429         42,649           HALLIBURTON CO         424,059         592,610           HANCOCK HOLDING CO         226,313         352,946           HANESBRANDS INC         140,325         107,095           HARLEY DAVIDSON INC         100,126         121,931           HARMAN INTERNATIONAL INDS         78,623         81,925           HARRIS CORP DEL         116,893         118,474           HAVERTY FURNITURE COMPANIES	GOODYEAR TIRE & RUBBER CO	118,683	112,676
GRAINGER W W INC         155,596         173,955           GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANITE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GRIFFON CORP         65,718         99,927           GROUP 1 AUTOMOTIVE INC         192,220         174,819           GROUPON INC         214,848         143,112           HACKETT GROUP         36,429         42,649           HALLIBURTON CO         424,059         592,610           HANCOCK HOLDING CO         226,313         352,946           HANESBRANDS INC         140,325         107,095           HARLEY DA VIDSON INC         100,126         121,931           HARMAN INTERNATIONAL INDS         78,623         81,925           HARMAN INTERNATIONAL INDS         78,623         81,925           HARLEY DAVIDSON INC         235,230         241,538           HASBRO INC	GOVERNMENT PROPERTIES INCOME TR REIT	148,585	136,849
GRAMERCY PROPERTY TRUST REIT         196,020         192,046           GRANITE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GRIFFON CORP         65,718         99,927           GROUP 1 AUTOMOTIVE INC         192,220         174,819           GROUPON INC         192,220         174,819           GROUPON INC         214,848         143,112           HACKETT GROUP         36,429         42,649           HALLIBURTON CO         424,059         592,610           HANCOCK HOLDING CO         226,313         352,946           HANESBRANDS INC         140,325         107,095           HARLEY DAVIDSON INC         100,126         121,931           HARMAN INTERNATIONAL INDS         78,623         81,925           HARRIS CORP DEL         128,471         166,206           HARTFORD FINL SVCS GROUP INC         235,230         241,538           HASBRO INC <td< td=""><td>GRAHAM HOLDINGS COMPANY</td><td>236,473</td><td>218,603</td></td<>	GRAHAM HOLDINGS COMPANY	236,473	218,603
GRANITE CONSTRUCTION INC         182,508         229,020           GREAT AJAX CORP REIT         44,510         45,304           GREAT WESTERN BANCORP INC         168,689         262,761           GREEN DOT CORP CL A         89,605         111,486           GREEN PLAINS INC         99,601         103,658           GREENBRIER COS INC         111,040         125,481           GRIFFON CORP         65,718         99,927           GROUP 1 AUTOMOTIVE INC         192,220         174,819           GROUPON INC         214,848         143,112           HACKETT GROUP         36,429         42,649           HALLIBURTON CO         424,059         592,610           HANCOCK HOLDING CO         226,313         352,946           HANESBRANDS INC         140,325         107,095           HARLEY DAVIDSON INC         100,126         121,931           HARMAN INTERNATIONAL INDS         78,623         81,925           HARRIS CORP DEL         128,471         166,206           HARTFORD FINL SVCS GROUP INC         235,230         241,538           HASBRO INC         116,893         118,474           HAVERTY FURNITURE COMPANIES INC         47,544         48,277           HAWAIIAN HOLDINGS INC	GRAINGER W W INC	155,596	173,955
GREAT AJAX CORP REIT       44,510       45,304         GREAT WESTERN BANCORP INC       168,689       262,761         GREEN DOT CORP CL A       89,605       111,486         GREEN PLAINS INC       99,601       103,658         GREENBRIER COS INC       111,040       125,481         GRIFFON CORP       65,718       99,927         GROUP I AUTOMOTIVE INC       192,220       174,819         GROUPON INC       214,848       143,112         HACKETT GROUP       36,429       42,649         HALLIBURTON CO       424,059       592,610         HANCOCK HOLDING CO       226,313       352,946         HANESBRANDS INC       140,325       107,095         HARLEY DAVIDSON INC       100,126       121,931         HARMAN INTERNATIONAL INDS       78,623       81,925         HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       214,127       325,128         HAVAILAN TELCOM       15,037	GRAMERCY PROPERTY TRUST REIT	196,020	192,046
GREAT WESTERN BANCORP INC       168,689       262,761         GREEN DOT CORP CL A       89,605       111,486         GREEN PLAINS INC       99,601       103,658         GREENBRIER COS INC       111,040       125,481         GRIFFON CORP       65,718       99,927         GROUP 1 AUTOMOTIVE INC       192,220       174,819         GROUPON INC       214,848       143,112         HACKETT GROUP       36,429       42,649         HALLIBURTON CO       424,059       592,610         HANCOCK HOLDING CO       226,313       352,946         HANESBRANDS INC       140,325       107,095         HARLEY DAVIDSON INC       100,126       121,931         HARMAN INTERNATIONAL INDS       78,623       81,925         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HECLA MNG CO       239,705	GRANITE CONSTRUCTION INC	182,508	229,020
GREEN DOT CORP CL A       89,605       111,486         GREEN PLAINS INC       99,601       103,658         GREENBRIER COS INC       111,040       125,481         GRIFFON CORP       65,718       99,927         GROUP I AUTOMOTIVE INC       192,220       174,819         GROUPON INC       214,848       143,112         HACKETT GROUP       36,429       42,649         HALLIBURTON CO       424,059       592,610         HANCOCK HOLDING CO       226,313       352,946         HANESBRANDS INC       140,325       107,095         HARLEY DAVIDSON INC       100,126       121,931         HARMAN INTERNATIONAL INDS       78,623       81,925         HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288	GREAT AJAX CORP REIT	44,510	45,304
GREEN PLAINS INC       99,601       103,658         GREENBRIER COS INC       111,040       125,481         GRIFFON CORP       65,718       99,927         GROUP 1 AUTOMOTIVE INC       192,220       174,819         GROUPON INC       214,848       143,112         HACKETT GROUP       36,429       42,649         HALLIBURTON CO       424,059       592,610         HANCOCK HOLDING CO       226,313       352,946         HANESBRANDS INC       140,325       107,095         HARLEY DAVIDSON INC       100,126       121,931         HARMAN INTERNATIONAL INDS       78,623       81,925         HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MING CO       239,705 <t< td=""><td>GREAT WESTERN BANCORP INC</td><td>168,689</td><td>262,761</td></t<>	GREAT WESTERN BANCORP INC	168,689	262,761
GREENBRIER COS INC       111,040       125,481         GRIFFON CORP       65,718       99,927         GROUP 1 AUTOMOTIVE INC       192,220       174,819         GROUPON INC       214,848       143,112         HACKETT GROUP       36,429       42,649         HALLIBURTON CO       424,059       592,610         HANCOCK HOLDING CO       226,313       352,946         HANESBRANDS INC       140,325       107,095         HARLEY DAVIDSON INC       100,126       121,931         HARMAN INTERNATIONAL INDS       78,623       81,925         HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	GREEN DOT CORP CL A	89,605	111,486
GRIFFON CORP       65,718       99,927         GROUP 1 AUTOMOTIVE INC       192,220       174,819         GROUPON INC       214,848       143,112         HACKETT GROUP       36,429       42,649         HALLIBURTON CO       424,059       592,610         HANCOCK HOLDING CO       226,313       352,946         HANESBRANDS INC       140,325       107,095         HARLEY DAVIDSON INC       100,126       121,931         HARMAN INTERNATIONAL INDS       78,623       81,925         HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	GREEN PLAINS INC	99,601	103,658
GROUP I AUTOMOTIVE INC       192,220       174,819         GROUPON INC       214,848       143,112         HACKETT GROUP       36,429       42,649         HALLIBURTON CO       424,059       592,610         HANCOCK HOLDING CO       226,313       352,946         HANESBRANDS INC       140,325       107,095         HARLEY DAVIDSON INC       100,126       121,931         HARMAN INTERNATIONAL INDS       78,623       81,925         HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	GREENBRIER COS INC	111,040	125,481
GROUPON INC       214,848       143,112         HACKETT GROUP       36,429       42,649         HALLIBURTON CO       424,059       592,610         HANCOCK HOLDING CO       226,313       352,946         HANESBRANDS INC       140,325       107,095         HARLEY DAVIDSON INC       100,126       121,931         HARMAN INTERNATIONAL INDS       78,623       81,925         HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	GRIFFON CORP	65,718	99,927
HACKETT GROUP       36,429       42,649         HALLIBURTON CO       424,059       592,610         HANCOCK HOLDING CO       226,313       352,946         HANESBRANDS INC       140,325       107,095         HARLEY DAVIDSON INC       100,126       121,931         HARMAN INTERNATIONAL INDS       78,623       81,925         HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	GROUP 1 AUTOMOTIVE INC	192,220	174,819
HALLIBURTON CO       424,059       592,610         HANCOCK HOLDING CO       226,313       352,946         HANESBRANDS INC       140,325       107,095         HARLEY DAVIDSON INC       100,126       121,931         HARMAN INTERNATIONAL INDS       78,623       81,925         HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	GROUPON INC	214,848	143,112
HANCOCK HOLDING CO226,313352,946HANESBRANDS INC140,325107,095HARLEY DAVIDSON INC100,126121,931HARMAN INTERNATIONAL INDS78,62381,925HARRIS CORP DEL128,471166,206HARTFORD FINL SVCS GROUP INC235,230241,538HASBRO INC116,893118,474HAVERTY FURNITURE COMPANIES INC47,54448,277HAWAIIAN HOLDINGS INC214,127325,128HAWAIIAN TELCOM15,03716,702HCA HOLDINGS INC245,699263,733HCP INC REIT214,887168,304HEARTLAND FINANCIAL USA INC65,28883,856HECLA MNG CO239,705201,792	HACKETT GROUP	36,429	42,649
HANESBRANDS INC140,325107,095HARLEY DAVIDSON INC100,126121,931HARMAN INTERNATIONAL INDS78,62381,925HARRIS CORP DEL128,471166,206HARTFORD FINL SVCS GROUP INC235,230241,538HASBRO INC116,893118,474HAVERTY FURNITURE COMPANIES INC47,54448,277HAWAIIAN HOLDINGS INC214,127325,128HAWAIIAN TELCOM15,03716,702HCA HOLDINGS INC245,699263,733HCP INC REIT214,887168,304HEARTLAND FINANCIAL USA INC65,28883,856HECLA MNG CO239,705201,792	HALLIBURTON CO	424,059	592,610
HARLEY DAVIDSON INC100,126121,931HARMAN INTERNATIONAL INDS78,62381,925HARRIS CORP DEL128,471166,206HARTFORD FINL SVCS GROUP INC235,230241,538HASBRO INC116,893118,474HAVERTY FURNITURE COMPANIES INC47,54448,277HAWAIIAN HOLDINGS INC214,127325,128HAWAIIAN TELCOM15,03716,702HCA HOLDINGS INC245,699263,733HCP INC REIT214,887168,304HEARTLAND FINANCIAL USA INC65,28883,856HECLA MNG CO239,705201,792	HANCOCK HOLDING CO	226,313	352,946
HARMAN INTERNATIONAL INDS       78,623       81,925         HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	HANESBRANDS INC	140,325	107,095
HARRIS CORP DEL       128,471       166,206         HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	HARLEY DAVIDSON INC	100,126	121,931
HARTFORD FINL SVCS GROUP INC       235,230       241,538         HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	HARMAN INTERNATIONAL INDS	78,623	81,925
HASBRO INC       116,893       118,474         HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	HARRIS CORP DEL	128,471	166,206
HAVERTY FURNITURE COMPANIES INC       47,544       48,277         HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	HARTFORD FINL SVCS GROUP INC	235,230	241,538
HAWAIIAN HOLDINGS INC       214,127       325,128         HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	HASBRO INC	116,893	118,474
HAWAIIAN TELCOM       15,037       16,702         HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	HAVERTY FURNITURE COMPANIES INC	47,544	48,277
HCA HOLDINGS INC       245,699       263,733         HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	HAWAIIAN HOLDINGS INC	214,127	325,128
HCP INC REIT       214,887       168,304         HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	HAWAIIAN TELCOM	15,037	16,702
HEARTLAND FINANCIAL USA INC       65,288       83,856         HECLA MNG CO       239,705       201,792	HCA HOLDINGS INC	245,699	263,733
HECLA MNG CO 239,705 201,792	HCP INC REIT	214,887	168,304
HECLA MNG CO 239,705 201,792	HEARTLAND FINANCIAL USA INC	65,288	83,856
	HECLA MNG CO	239,705	201,792

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HELLX ENERGY SOLUTIONS GROUP   105.951   13.033   13.031   14.031   13.031   13.031   13.031   13.031   13.033   13.03	SECURITY NAME	COST	MARKET
HENRY SCHEIN INC         155,473         156,110           HERTZ GLOBAL HOLDINGS INC         269,828         176,555           HESSA CORP         29,534         47,256           HESS CORPORATION         198,631         218,638           HEWLETT PACKARD ENTERPRISE COMPANY         298,505         473,930           HILL INTL INC         1,16,032         16,073           HILL TON WORLDWIDE HOLDINGS INC         1,175,012         1,342,755           HNI CORP         279,931         362,865           HOLOGIC INC         1,911,917         2,070,597           HOME DEPOT INC         632,669         628,701           HOME DEPOT INC         53,629         79,284           HOMETRUST BANCSHARES INC         37,176         49,852           HOMETRUST BANCSHARES INC         37,176         49,852           HONEYWELL INTERNATIONAL INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         151,674         81,508           HORTZON BANCORP INC         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HUB GROUP INC         140,632         156,450			92,707
HERTZ GLOBAL HOLDINGS INC         269,828         176,555           HESK A CORP         29,534         47,256           HESS CORPORATION         198,631         218,638           HEWLETT PACKARD ENTERPRISE COMPANY         298,505         473,930           HILL INTL INC         12,623         16,073           HILLTON WORLDWIDE HOLDINGS INC         1,175,012         1,342,755           KINI CORP         279,931         362,865           HOLOGIC INC         1,911,917         2,070,597           HOME DEPOT INC         1,911,917         2,070,597           HOME DEPOT INC         363,629         79,284           HOMESTREET INC         37,176         49,832           HOMEWIL INTERNATIONAL INC         1,002,783         1,123,745           HORYEUEL INTERNATIONAL INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HORTEL FOODS CORPORATION         123,711         123,706           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         150,450 <t< td=""><td>HELMERICH &amp; PAYNE INC</td><td>84,673</td><td>113,933</td></t<>	HELMERICH & PAYNE INC	84,673	113,933
HESKA CORP         29,534         47,256           HESS CORPORATION         198,631         218,638           HEWLETT PACKARD ENTERPRISE COMPANY         298,505         473,930           HILL INTL INC         12,623         16,073           HILL TON WORLDWIDE HOLDINGS INC         1,175,012         1,342,755           HOL CORP         279,931         362,865           HOLOGIC INC         1,911,917         2,070,597           HOME DEPOT INC         632,669         628,701           HOME DEPOT INC         37,176         49,832           HOMETRUST BANCSHARES INC         37,176         49,832           HOMETRUST BANCSHARES INC         37,176         49,832           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HORMEL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HUB FO         29,552         33,580           HUB SOUP INC         140,632         156,450           HUB SOUP INC         140,632         156,450           HUB SOUP INC         17,486         20,586           HUB SOUP SOUP SOUP SOUP SOUP SOUP SOU	HENRY SCHEIN INC	155,473	156,110
HESS CORPORATION         198,631         218,638           HEWLETT PACKARD ENTERPRISE COMPANY         298,505         473,938           HILL INTL INC         12,623         16,073           HILL TON WORLDWIDE HOLDINGS INC         1,175,012         1,342,755           INI CORP         279,931         362,865           HOLOGIC INC         127,804         147,922           HOME DEPOT INC         632,669         628,701           HOME DEPOT INC         632,669         628,701           HOMESTREET INC         35,629         79,284           HOMETUST BANCSHARES INC         37,176         49,832           HONEYWELL INTERNATIONAL INC         1,002,783         1,123,745           HONEYWELL INTERNATIONAL INC         1,002,783         1,123,745           HONEYWEL FOODS CORPORTOR         15,674         81,508           HORIZON BANCORP INC         51,674         81,508           HORIZON BANCORP INC         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,005           HUB GROUP INC         140,632         156,450           HUB GROUP INC         17,486         20,586           HUB SPOT INC<	HERTZ GLOBAL HOLDINGS INC	269,828	176,555
HEWLETT PACKARD ENTERPRISE COMPANY         298,505         473,930           HILL. INTL INC         12,623         16,073           HILLTON WORLDWIDE HOLDINGS INC         1,175,012         1,342,755           HNI CORP         279,931         362,865           HOLOGIC INC         1,911,917         2,070,597           HOME DEPOT INC         1,911,917         2,070,597           HOME DEPOT INC         632,669         628,701           HOMESTREET INC         53,629         79,284           HOMESTREET INC         37,176         49,832           HOMETRUST BANCSHARES INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HORIZON BANCORP INC         15,674         81,508           HORTHOFILS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB SROUP INC         140,632         156,450           HUB GROUP INC         17,486         20,586           HUDSON TECHNOLOGIES INC         17,486         20,586           HUDSON TECHNOLOGIES INC         16,496         16,492           HUMTHOGTON BANCSHARES	HESKA CORP	29,534	47,256
HILL INTL INC         12,623         16,073           HILTON WORLDWIDE HOLDINGS INC         1,175,012         1,342,755           HNI CORP         279,931         362,865           HOLOGIC INC         127,804         147,922           HOME DEPOT INC         1,911,917         2,070,597           HOME DEPOT INC         632,669         628,701           HOMESTREET INC         37,176         49,832           HOMETRUST BANCSHARES INC         1,002,783         1,123,745           HONEYWELL INTERNATIONAL INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HORIZON BANCORP INC         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUB GROUP INC         140,632         156,450           HUBSPOT INC         39,552         53,580           HUB SPOT INC         109,7894         1,247,235           HUMANA INC         109,7894         1,247,235           HUM IN B TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086	HESS CORPORATION	198,631	218,638
HILTON WORLDWIDE HOLDINGS INC         1,175,012         1,342,755           HNI CORP         279,931         362,865           HOLOGIC INC         127,804         147,922           HOME DEPOT INC         1,911,917         2,070,597           HOME DEPOT INC         632,669         628,701           HOMESTREET INC         35,629         79,284           HOMETRUST BANCSHARES INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HORMEL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         156,459           HUBSPOT INC         19,552         53,580           HUBSPOT INC         19,552         53,580           HUBANA INC         1,097,894         1,247,235           HUMANA INC         1,097,894         1,247,235           HUNT ING BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         152,086         195,008           ICF INTERNATIONAL INC	HEWLETT PACKARD ENTERPRISE COMPANY	298,505	473,930
HNI CORP	HILL INTL INC	12,623	16,073
HOLOGIC INC         127,804         147,922           HOME DEPOT INC         1,911,917         2,070,597           HOME DEPOT INC         632,669         628,701           HOMESTREET INC         53,629         79,284           HOMETRUST BANCSHARES INC         37,176         49,832           HONEYWELL INTERNATIONAL INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HOREL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUBSPOT INC         59,552         53,580           HUBSPOT INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMANA INC         10,97,894         1,247,235           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           ILLINING INC         368,448	HILTON WORLDWIDE HOLDINGS INC	1,175,012	1,342,755
HOME DEPOT INC         1,911,917         2,070,597           HOME DEPOT INC         632,669         628,701           HOMESTREET INC         33,629         79,284           HOMETRUST BANCSHARES INC         37,176         49,832           HONEYWELL INTERNATIONAL INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORMEL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HUS GROUP INC         140,632         156,450           HUBS GROUP INC         140,632         156,450           HUBSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMANA INC         1,097,894         1,247,235           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         1113,381           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           IL-UMINA INC         368,448         489,404           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION	HNI CORP	279,931	362,865
HOME DEPOT INC         632,669         628,701           HOMESTREET INC         33,629         79,284           HOMETRUST BANCSHARES INC         37,176         49,832           HONEYWELL INTERNATIONAL INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HORMEL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HUB GROUP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUBSPOT INC         59,552         53,580           HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMANA INC         1,097,894         1,247,235           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CLB         19,267         33,187           IVVI INC         368,448         489,840           ILLUMINA INC         217,	HOLOGIC INC	127,804	147,922
HOMESTREET INC         53,629         79,284           HOMETRUST BANCSHARES INC         37,176         49,832           HONEYWELL INTERNATIONAL INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HORMEL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUBSPOT INC         17,486         20,586           HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMT IB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           ILLINOIS TOOL WKS INC         368,448         489,840           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENT BANK CORP <td>HOME DEPOT INC</td> <td>1,911,917</td> <td>2,070,597</td>	HOME DEPOT INC	1,911,917	2,070,597
HOMETRUST BANCSHARES INC         37,176         49,832           HONEYWELL INTERNATIONAL INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HORMEL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUBSPOT INC         17,486         20,586           HUBSPOT INC         17,486         20,586           HUBSPOT INC         320,764         367,458           HUBSPOT INC         17,486         20,586           HUBSPOT INC         19,97,894         1,247,235           HUMANA INC         1,097,894         1,247,235           HUMANA INC         152,086         195,008           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           ILLINOIS TOOL WKS INC         368,448 <td< td=""><td>HOME DEPOT INC</td><td>632,669</td><td>628,701</td></td<>	HOME DEPOT INC	632,669	628,701
HONEYWELL INTERNATIONAL INC         1,002,783         1,123,745           HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HORMEL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUBSPOT INC         59,552         53,580           HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           II-VIINC         99,288         161,296           ILLUMINA INC         368,448         489,840           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENT BANK CORP         61,489         91,596           INGERSOLL-RAND PLC         191,39	HOMESTREET INC	53,629	79,284
HORACE MANN EDUCATORS CORP         152,983         186,950           HORIZON BANCORP INC         51,674         81,508           HORMEL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUBSPOT INC         59,552         53,580           HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         1,097,894         1,247,235           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           ILLINOIS TOOL WKS INC         368,448         489,840           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENCE REALTY TRUST INC REIT         36,644         36,278           INGERSOLL-RAND PLC         191,394         244,405           INGES MARKETS INC	HOMETRUST BANCSHARES INC	37,176	49,832
HORIZON BANCORP INC         51,674         81,508           HORMEL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUBSPOT INC         59,552         53,580           HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         1,097,894         1,247,235           HUMANA INC         1,097,894         1,247,235           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           ILLINOIS TOOL WKS INC         368,448         489,840           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENCE REALTY TRUST INC REIT         36,644         36,278           INGERS MARKETS INC         64,736         62,722           INNERWORKINGS INC         30,100         39,459           INNOSPEC INC         155,863	HONEYWELL INTERNATIONAL INC	1,002,783	1,123,745
HORMEL FOODS CORPORATION         123,711         123,506           HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUBSPOT INC         59,552         53,580           HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMANA INC         1,097,894         1,247,235           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           ILLUMINS INC         368,448         489,840           ILLUMINA INC         307,182         222,918           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENT BANK CORP         61,489         91,596           INGERS MARKETS INC         191,394         244,405           INGERS MARKETS INC         30,100         39,459	HORACE MANN EDUCATORS CORP	152,983	186,950
HOST HOTELS & RESORTS, INC REIT         154,598         174,477           HP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUBSPOT INC         59,552         53,580           HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMANA INC         1,097,894         1,247,235           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           ILLINOIS TOOL WKS INC         368,448         489,840           ILLUMINA INC         307,182         222,918           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENCE REALTY TRUST INC REIT         36,644         36,278           INGERSOLL-RAND PLC         191,394         244,405           INGES MARKETS INC         64,736         62,722           INNERWORKINGS INC         30,100 <td< td=""><td>HORIZON BANCORP INC</td><td>51,674</td><td>81,508</td></td<>	HORIZON BANCORP INC	51,674	81,508
HP INC         289,591         324,002           HUB GROUP INC         140,632         156,450           HUBSPOT INC         59,552         53,580           HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMANA INC         1,097,894         1,247,235           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           ILLINOIS TOOL WKS INC         368,448         489,840           ILLUMINA INC         307,182         222,918           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENCE REALTY TRUST INC REIT         36,644         36,278           INDEPENDENT BANK CORP         61,489         91,596           INGERSOLL-RAND PLC         191,394         244,405           INGES MARKETS INC         64,736         62,722           INNERWORKINGS INC         30,100         39,459	HORMEL FOODS CORPORATION	123,711	123,506
HUB GROUP INC         140,632         156,450           HUBSPOT INC         59,552         53,580           HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMANA INC         1,097,894         1,247,235           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           II-VI INC         99,288         161,296           ILLINOIS TOOL WKS INC         368,448         489,840           ILLUMINA INC         307,182         222,918           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENCE REALTY TRUST INC REIT         36,644         36,278           INDEPENDENT BANK CORP         61,489         91,596           INGERSOLL-RAND PLC         191,394         244,405           INGES MARKETS INC         64,736         62,722           INNERWORKINGS INC         30,100         39,459           INNOSPEC INC         155,863         173,716           INOGEN INC         76,395         113,383<	HOST HOTELS & RESORTS, INC REIT	154,598	174,477
HUBSPOT INC         59,552         53,580           HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMANA INC         1,097,894         1,247,235           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           ILLINOIS TOOL WKS INC         368,448         489,840           ILLUMINA INC         307,182         222,918           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENCE REALTY TRUST INC REIT         36,644         36,278           INDEPENDENT BANK CORP         61,489         91,596           INGERSOLL-RAND PLC         191,394         244,405           INGES MARKETS INC         64,736         62,722           INNEWORKINGS INC         30,100         39,459           INNOSPEC INC         155,863         173,716           INOGEN INC         76,395         113,383 <td>HP INC</td> <td>289,591</td> <td>324,002</td>	HP INC	289,591	324,002
HUDSON TECHNOLOGIES INC         17,486         20,586           HUMANA INC         320,764         367,458           HUMANA INC         1,097,894         1,247,235           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           ILLINOIS TOOL WKS INC         368,448         489,840           ILLUMINA INC         307,182         222,918           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENCE REALTY TRUST INC REIT         36,644         36,278           INDEPENDENT BANK CORP         61,489         91,596           INGERSOLL-RAND PLC         191,394         244,405           INGES MARKETS INC         64,736         62,722           INNEWORKINGS INC         30,100         39,459           INNOSPEC INC         155,863         173,716           INOGEN INC         76,395         113,383           INPHI CORP         123,536         176,829 <td>HUB GROUP INC</td> <td>140,632</td> <td>156,450</td>	HUB GROUP INC	140,632	156,450
HUMANA INC         320,764         367,458           HUMANA INC         1,097,894         1,247,235           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           ILLINOIS TOOL WKS INC         368,448         489,840           ILLUMINA INC         307,182         222,918           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENCE REALTY TRUST INC REIT         36,644         36,278           INDEPENDENT BANK CORP         61,489         91,596           INGERSOLL-RAND PLC         191,394         244,405           INGLES MARKETS INC         64,736         62,722           INNERWORKINGS INC         30,100         39,459           INNOSPEC INC         155,863         173,716           INOGEN INC         76,395         113,383           INPHI CORP         123,536         176,829           INSIGHT ENTERPRISES INC         104,202         160,50	HUBSPOT INC	59,552	53,580
HUMANA INC         1,097,894         1,247,235           HUNT JB TRANS SVCS         72,190         92,314           HUNTINGTON BANCSHARES INC         152,086         195,008           ICF INTERNATIONAL INC         65,041         113,381           IDT CORP CL B         19,267         33,187           II-VI INC         99,288         161,296           ILLINOIS TOOL WKS INC         368,448         489,840           ILLUMINA INC         307,182         222,918           ILLUMINA INC         217,865         202,687           INCYTE CORPORATION         253,120         220,594           INDEPENDENCE REALTY TRUST INC REIT         36,644         36,278           INDEPENDENT BANK CORP         61,489         91,596           INGERSOLL-RAND PLC         191,394         244,405           INGLES MARKETS INC         64,736         62,722           INNERWORKINGS INC         30,100         39,459           INNOSPEC INC         155,863         173,716           INOGEN INC         76,395         113,383           INPHI CORP         123,536         176,829           INSIGHT ENTERPRISES INC         104,202         160,506           INSPERITY INC         98,740         137,	HUDSON TECHNOLOGIES INC	17,486	20,586
HUNT JB TRANS SVCS 72,190 92,314 HUNTINGTON BANCSHARES INC 152,086 195,008 ICF INTERNATIONAL INC 65,041 113,381 IDT CORP CL B 19,267 33,187 II-VI INC 99,288 161,296 ILLINOIS TOOL WKS INC 368,448 489,840 ILLUMINA INC 307,182 222,918 ILLUMINA INC 217,865 202,687 INCYTE CORPORATION 253,120 220,594 INDEPENDENCE REALTY TRUST INC REIT 36,644 36,278 INDEPENDENT BANK CORP 61,489 91,596 INGERSOLL-RAND PLC 191,394 244,405 INGLES MARKETS INC 64,736 62,722 INNERWORKINGS INC 30,100 39,459 INNOSPEC INC 155,863 173,716 INOGEN INC 76,395 113,383 INPHI CORP 123,536 176,829 INSIGHT ENTERPRISES INC 104,202 160,506 INSPERITY INC 98,740 137,927 INSTALLED BUILDING PRODUCTS 49,103 84,004	HUMANA INC	320,764	367,458
HUNTINGTON BANCSHARES INC       152,086       195,008         ICF INTERNATIONAL INC       65,041       113,381         IDT CORP CL B       19,267       33,187         II-VI INC       99,288       161,296         ILLINOIS TOOL WKS INC       368,448       489,840         ILLUMINA INC       307,182       222,918         ILLUMINA INC       217,865       202,687         INCYTE CORPORATION       253,120       220,594         INDEPENDENCE REALTY TRUST INC REIT       36,644       36,278         INDEPENDENT BANK CORP       61,489       91,596         INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	HUMANA INC	1,097,894	1,247,235
ICF INTERNATIONAL INC       65,041       113,381         IIDT CORP CL B       19,267       33,187         II-VI INC       99,288       161,296         ILLINOIS TOOL WKS INC       368,448       489,840         ILLUMINA INC       307,182       222,918         ILLUMINA INC       217,865       202,687         INCYTE CORPORATION       253,120       220,594         INDEPENDENCE REALTY TRUST INC REIT       36,644       36,278         INDEPENDENT BANK CORP       61,489       91,596         INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	HUNT JB TRANS SVCS	72,190	92,314
IDT CORP CL B       19,267       33,187         II-VI INC       99,288       161,296         ILLINOIS TOOL WKS INC       368,448       489,840         ILLUMINA INC       307,182       222,918         ILLUMINA INC       217,865       202,687         INCYTE CORPORATION       253,120       220,594         INDEPENDENCE REALTY TRUST INC REIT       36,644       36,278         INDEPENDENT BANK CORP       61,489       91,596         INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INOGEN INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	HUNTINGTON BANCSHARES INC	152,086	195,008
II-VI INC       99,288       161,296         ILLINOIS TOOL WKS INC       368,448       489,840         ILLUMINA INC       307,182       222,918         ILLUMINA INC       217,865       202,687         INCYTE CORPORATION       253,120       220,594         INDEPENDENCE REALTY TRUST INC REIT       36,644       36,278         INDEPENDENT BANK CORP       61,489       91,596         INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	ICF INTERNATIONAL INC	65,041	113,381
ILLINOIS TOOL WKS INC       368,448       489,840         ILLUMINA INC       307,182       222,918         ILLUMINA INC       217,865       202,687         INCYTE CORPORATION       253,120       220,594         INDEPENDENCE REALTY TRUST INC REIT       36,644       36,278         INDEPENDENT BANK CORP       61,489       91,596         INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	IDT CORP CL B	19,267	33,187
ILLUMINA INC       307,182       222,918         ILLUMINA INC       217,865       202,687         INCYTE CORPORATION       253,120       220,594         INDEPENDENCE REALTY TRUST INC REIT       36,644       36,278         INDEPENDENT BANK CORP       61,489       91,596         INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       155,863       173,716         INOFIN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	II-VI INC	99,288	161,296
ILLUMINA INC       217,865       202,687         INCYTE CORPORATION       253,120       220,594         INDEPENDENCE REALTY TRUST INC REIT       36,644       36,278         INDEPENDENT BANK CORP       61,489       91,596         INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	ILLINOIS TOOL WKS INC	368,448	489,840
INCYTE CORPORATION       253,120       220,594         INDEPENDENCE REALTY TRUST INC REIT       36,644       36,278         INDEPENDENT BANK CORP       61,489       91,596         INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	ILLUMINA INC	307,182	222,918
INDEPENDENCE REALTY TRUST INC REIT       36,644       36,278         INDEPENDENT BANK CORP       61,489       91,596         INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	ILLUMINA INC	217,865	202,687
INDEPENDENT BANK CORP       61,489       91,596         INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	INCYTE CORPORATION	253,120	220,594
INGERSOLL-RAND PLC       191,394       244,405         INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	INDEPENDENCE REALTY TRUST INC REIT	36,644	36,278
INGLES MARKETS INC       64,736       62,722         INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	INDEPENDENT BANK CORP	61,489	91,596
INNERWORKINGS INC       30,100       39,459         INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	INGERSOLL-RAND PLC	191,394	244,405
INNOSPEC INC       155,863       173,716         INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	INGLES MARKETS INC	64,736	62,722
INOGEN INC       76,395       113,383         INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	INNERWORKINGS INC	30,100	39,459
INPHI CORP       123,536       176,829         INSIGHT ENTERPRISES INC       104,202       160,506         INSPERITY INC       98,740       137,927         INSTALLED BUILDING PRODUCTS       49,103       84,004	INNOSPEC INC	155,863	173,716
INSIGHT ENTERPRISES INC104,202160,506INSPERITY INC98,740137,927INSTALLED BUILDING PRODUCTS49,10384,004	INOGEN INC	76,395	113,383
INSPERITY INC 98,740 137,927 INSTALLED BUILDING PRODUCTS 49,103 84,004	INPHI CORP	123,536	176,829
INSTALLED BUILDING PRODUCTS 49,103 84,004	INSIGHT ENTERPRISES INC	104,202	160,506
INSTALLED BUILDING PRODUCTS  Page 12 of 25  49,103  84,004	INSPERITY INC	98,740	137,927
	INSTALLED BUILDING PRODUCTS  Page 12 of 25	49,103	84,004

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SECURITY NAME	COST	MARKET
INSTEEL INDS	60,227	68,643
INTEGRA LIFESCIENCES CORP	214,641	284,308
INTEL CORP	2,078,046	2,178,014
INTERCONTINENTAL EXCHANGE INC	380,195	418,354
INTERCONTINENTAL EXCHANGE INC	1,189,457	1,297,660
INTERNATIONAL BANCSHARES CORP	175,165	264,425
INTERNATIONAL FLAVORS & FRAGRANCES	123,134	125,842
INTERNATIONAL PAPER CO	223,645	271,243
INTERNATIONAL SEAWAYS INC	20,581	18,954
INTERPUBLIC GROUP COS INC	123,193	127,327
INTL BUSINESS MACHINES CORP	1,534,162	1,803,813
INTRAWEST RESORTS HOLDINGS INC	22,140	23,580
INTUIT INC	299,110	350,134
INTUIT INC	679,480	719,636
INTUITIVE SURGICAL INC	257,161	315,817
INTUITIVE SURGICAL INC	1,432,103	1,795,969
INVESCO LTD	180,162	159,952
INVESCO MORTGAGE REIT	162,491	195,669
IRIDIUM COMMUNICATIONS, INC.	62,453	77,971
IROBOT CORP	107,679	172,544
IRON MOUNTAIN INC REIT	106,050	101,370
ISLE OF CAPRI CASINOS	50,483	65,478
JACOBS ENGINEERING GROUP INC	49,870	73,074
JAMES RIVER GROUP HOLDINGS LTD	43,352	61,079
JM SMUCKER CO	171,642	188,632
JOHN B SANFILIPPO & SON	57,832	63,421
JOHN BEAN TECHNOLOGIES	227,356	259,311
JOHNSON & JOHNSON	3,466,653	3,949,284
JOHNSON CONTROLS INTERNATIONAL PLC	507,073	477,021
JOHNSON OUTDOORS INC CL A	15,834	23,258
JOY GLOBAL INC	288,291	289,324
JP MORGAN CHASE & CO	520,898	3,894,095
JUNIPER NETWORKS INC	138,662	123,807
K12 INC	48,625	61,673
KADANT INC	58,690	86,353
KANSAS CITY SOUTHERN	122,627	124,730
KB HOME COM	119,774	141,911
KCG HOLDINGS INC	66,651	63,216
KELLOGG CO	220,755	229,607
KELLY SERVICES INC	53,551	77,309
KEMET CORPORATION	16,496	26,116
KEMPER CORPORATION	191,313	233,018
KEYCORP	175,091	241,383
KEYW HOLDING CORP	38,462	43,022
KIMBALL ELECTRONICS INC	27,369	43,170
KIMBALL INTL INC CL B Page 13 of 25	43,036	68,308

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SECURITY NAME	COST	MARKET
KIMBERLY CLARK CORP	531,823	502,813
KIMCO REALTY CORP REIT	138,391	128,693
KINDER MORGAN INC	658,736	506,504
KINDRED HEALTHCARE INC	130,541	78,100
KIRKLANDS INC	36,539	24,413
KLA-TENCOR CORP	135,500	161,530
KLX INC	221,239	259,022
KMG CHEMICALS INC	22,933	31,851
KNOLL INC	125,070	149,509
KOHLS CORP	98,358	105,920
KRAFT HEINZ CO	600,221	659,353
KRATON CORP	102,392	95,721
KROGER CO	444,018	406,183
KULICKE & SOFFA INDS INC	103,119	122,911
L BRANDS, INC	299,379	205,948
L3 COMMUNICATIONS HOLDINGS INC	135,170	158,955
LABORATORY CORP AMERICA HOLDINGS	152,528	159,448
LAKELAND BANCORP INC	61,403	102,024
LAM RESEARCH CORP	148,361	206,702
LANCASTER COLONY CORP	200,682	222,265
LANDSTAR SYSTEMS INC	204,921	275,604
LAUDER ESTEE COS CL-A	228,781	211,265
LAYNE CHRISTENSEN CO	17,556	21,860
LA-Z-BOY INC	152,874	169,347
LEGGETT & PLATT INC	63,779	69,263
LEMAITRE VASCULAR INC	21,177	40,240
LENDINGTREE INC	94,685	80,371
LENNAR CORP-CL A	118,718	105,780
LEUCADIA NATIONAL CORP	70,189	81,189
LEVEL 3 COMMUNICATIONS, INC	183,356	199,683
LGI HOMES INC	55,039	46,945
LHC GROUP INC	66,371	69,327
LIFELOCK INC	142,461	196,862
LIGAND PHARMACEUTICALS INC B	166,522	184,117
LILLY ELI & CO	1,012,296	899,002
LINCOLN NATL CORP	164,651	204,841
LINEAR TECHNOLOGY CORP	135,361	185,429
LIQUIDITY SERVICES INC	17,601	18,701
LKQ CORP	117,202	114,294
LOCKHEED MARTIN CORP	712,110	805,807
LOEWS CORPORATION	137,568	170,508
LOGMEIN INC	190,146	268,602
LOWES COS INC	825,874	793,699
LOWES COS INC	541,501	520,883
LSI INDUSTIES INC	33,923	30,515
LUMENTUM HOLDINGS INC Page 14 of 25	157,900	219,957

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SECURITY NAME	COST	MARKET
LUMINEX CORP DEL	72,536	80,151
LYDALL INC	61,973	111,083
LYONDELLBASELL INDUSTRIES NV	380,478	353,671
M & T BANK CORP	250,455	314,424
M/I HOMES, INC.	59,658	64,914
MACATAWA BANK CORP	22,518	31,292
MACERICH CO COM REIT	142,307	117,949
MACY'S INC	203,113	145,317
MAGELLAN HEALTH INC	179,677	199,789
MAGIC LEAP INC PFD SER C 144A	106,988	106,974
MAIDEN HOLDINGS LTD	97,115	108,940
MAINSOURCE FINANCIAL GROUP INC	48,128	74,648
MALLINCKRODT PLC	85,172	60,531
MANTECH INTERNATIONAL CORP CL A	76,183	108,836
MARATHON OIL CORP	175,333	185,667
MARATHON PETROLEUM CORPORATION	326,766	328,131
MARCUS CORP DELEWARE	42,163	64,040
MARINEMAX INC	49,543	45,956
MARRIOTT INTERNATIONAL INC	303,745	341,303
MARSH & MCLENNAN COS INC	361,386	435,009
MARTIN MARIETTA MATLS INC	113,091	162,825
MASCO CORP	107,479	116,077
MASIMO CORP	205,599	320,015
MASTERCARD INC CL A	1,201,147	1,240,859
MATTEL INC	109,892	123,286
MAXLINEAR INC CL A	115,086	122,145
MBIA INC	105,809	146,419
MBT FINANCIAL CORP	20,529	23,824
MCCORMICK & CO INC	129,014	142,982
MCDERMOTT INTERNATIONAL INC	139,247	202,589
MCDONALDS CORP	1,203,176	1,297,779
MCEWEN MINING INC	109,217	70,300
MCKESSON CORP	511,499	394,945
MDC HOLDINGS INC	109,447	113,289
MEAD JOHNSON NUTRITION CO	174,779	154,257
MEDICAL PROPERTIES TRUST INC REIT	208,106	170,872
MEDIFAST INC	31,228	43,878
MEDTRONIC PLC	1,278,802	1,229,857
MEETME INC	25,662	23,171
MENTOR GRAPHICS CORP	270,287	368,457
MERCANTILE BK CORP	44,428	73,553
MERCK & CO INC	1,912,802	2,037,550
MERCK & CO INC	395,737	372,058
MERCURY SYSTEMS, INC.	107,340	127,800
MERIT MED SYSTEM INC	93,653	128,711
META FINANCIAL GROUP Page 15 of 25	78,131	77,484

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SECURITY NAME	COST	MARKET
METLIFE INC	713,959	750,688
METTLER-TOLEDO INTERNATIONAL INC	133,719	139,380
MFA FINANCIAL INC REIT	282,927	303,254
MGM RESORTS INTERNATIONAL	1,472,072	1,839,354
MGP INGREDIENTS INC	26,745	66,473
MICHAEL KORS HOLDINGS LTD	98,943	102,035
MICROCHIP TECHNOLOGY INC	148,729	185,137
MICRON TECHNOLOGY INC	222,421	288,928
MICROSOFT CORP	5,273,036	6,077,913
MICROSOFT CORP	3,015,100	3,405,272
MID-AMER APARTMENT COMM REIT	120,562	132,780
MIDDLESEX WATER CO	70,312	74,029
MILLER HERMAN INC	218,718	264,605
MILLER INDUSTRIES INC/TENN	23,739	28,275
MINDBODY INC CL A	22,304	26,306
MISTRAS GROUP INC	42,613	43,168
MITEK SYSTEMS INC	23,648	18,044
MODINE MFG CO	48,657	72,042
MOHAWK INDUSTRIES INC	154,068	156,749
MOLSON COORS BREWING CO-B	213,356	231,598
MONARCH CASINO & RESORT INC	12,601	14,205
MONDELEZ INTERNATIONAL INC	905,719	868,070
MONSANTO CO	519,382	586,651
MOODYS CORP	212,762	201,078
MORGAN STANLEY	614,609	777,865
MORGAN STANLEY	1,795,397	2,395,786
MOTOROLA SOLUTIONS, INC	139,926	164,951
MOVADO GROUP INC	36,914	47,064
MSC INDL DIRECT INC CL A	217,526	275,415
MTGE INVESTMENT CORP REIT	79,123	85,282
MURPHY OIL CORP	45,606	52,330
MURPHY USA INC	265,443	237,827
MYLAN NV	265,443	223,597
MYR GROUP INC	53,375	89,716
NABORS INDUSTRIES LTD	369,692	463,120
NANOMETRICS INC	54,103	61,572
NASDAQ INC	72,571	82,155
NATIONAL PRESTO INDS INC	46,148	55,434
NATIONAL STORAGE AFFILIATES REIT	48,399	48,819
NATIONAL-OILWELL INC	174,166	176,829
NATURAL HEALTH TRENDS CORP	41,196	22,986
NAUTILUS INC	62,044	65,231
NAVIENT CORP	53,472	63,617
NAVIGANT CONSULTING INC	84,066	127,392
NAVIGATORS GROUP INC	101,090	137,768
NELNET INC-A Page 16 of 25	78,714	109,874

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SECURITY NAME	COST	MARKET
NEOGENOMICS INC	38,275	46,578
NEOPHOTONICS CORP	35,048	38,873
NETAPP INC	101,985	110,183
NETFLIX INC	576,978	678,053
NETFLIX INC	640,344	854,220
NETGEAR INC	141,849	183,649
NEW MEDIA INVESTMENT GROUP INC	63,897	70,756
NEW RESIDENTIAL INVESTMENT CORP REIT	345,719	422,176
NEW YORK MORTGAGE REIT	68,480	78,494
NEWELL BRANDS INC	280,263	278,080
NEWFIELD EXPLORATION CO	95,607	104,369
NEWMONT MNG CORP	149,833	234,163
NEWS CORP/NEW CL A	59,199	45,198
NEWS CORP/NEW CL B	24,412	18,597
NEXPOINT RESIDENTIAL TRUST INC REIT	34,477	39,765
NEXTERA ENERGY INC	606,508	696,810
NIELSEN HOLDINGS PLC	216,603	188,397
NIKE INC-CLASS B	1,111,986	867,058
NISOURCE INC	83,776	93,187
NOBLE ENERGY INC	182,844	198,787
NORDSTROM INC	93,254	69,115
NORFOLK SOUTHERN CORP	27,067	397,373
NORTHERN TR CORP	191,544	239,277
NORTHROP GRUMMAN CORPORATION	441,729	534,934
NRG ENERGY INC	44,636	41,966
NRG YIELD INC	56,411	55,880
NRG YIELD INC CL C	93,398	102,842
NU SKIN ENTERPRISES INC	336,019	254,763
NUCOR CORP	167,690	234,271
NUTRACEUTICAL INTL CORP	25,515	36,383
NUTRI SYSTEM INC	72,577	104,955
NUVASIVE INC	174,888	243,641
NV5 GLOBAL INC	17,009	24,516
NVIDIA CORP	215,959	734,051
NVIDIA CORP	408,090	482,892
NXP SEMICONDUCTORS	1,330,204	1,621,673
NXSTAGE MEDICAL INC	143,830	160,641
OCCIDENTAL PETE CORP	713,726	688,082
OCEANFIRST FINANCIAL CORPORATION	11,674	18,559
OCLARO INC	70,639	110,774
OFG BANCORP	45,086	61,911
OLD NATL BANCORP	198,425	255,734
OLD SECOND BANCORP INC	37,605	60,808
OLLIE'S BARGAIN OUTLET HOLDINGS INC	61,373	68,337
OLYMPIC STEEL INC	28,393	22,728
OMEGA PROTEIN CORP	54,431	75,275
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OMNICOM GROUP         222,491         252,947           ONE GAS INC         160,608         208,638           ONEOK INC         113,981         163,331           OPPENHEIMER HOLDINGS INC         20,976         20,851           ORACLE CORPORATION         1,463,815         1,445,758           ORBCOMM INC         81,475         65,928           ORCHID ISLAND CAPITAL INC REIT         23,532         23,707           OREILLY AUTOMOTIVE INC         320,131         336,319           OREILLY AUTOMOTIVE INC         494,858         501,138           ORION GROUP HOLDINGS INC         17,117         29,492           ORTHOFIX INTERNATIONAL N.V.         68,437         71,817           OVERSEAS SIEPHOLDING GROUP INC CL A         39,751         15,523           OVERSEAS SIEPHOLDING GROUP INC CL A         197,418         194,768           OWENS & SINDRO INC         197,418         194,768           OWENS REALTY MORTGAGE INC REIT         12,381         33,597           PACIFIC ETHANOL INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         33,977           PACIFIC ETHANOL INC         28,234         33,977           PACIFIC ETHANOL INC         20,351         278,754	SECURITY NAME	COST	MARKET
ONEOK INC         113,981         163,331           OPPENHEMER HOLDINGS INC         20,976         20,851           ORACLE CORPORATION         1,463,815         1,445,758           ORBCOMM INC         81,475         65,928           ORCHID ISLAND CAPITAL INC REIT         23,532         23,707           ORCHID SILAND CAPITAL INC REIT         230,131         336,319           ORION GROUP HOLDINGS INC         17,117         29,492           ORION GROUP HOLDINGS INC         17,117         29,492           ORION GROUP HOLDING GROUP INC CL A         39,751         15,523           OVERSEAS SHIPHOLDING GROUP INC CL A         39,751         15,523           OVERSEA GROWING         197,418         194,766           OWENS & MINOR INC         197,418         194,766           OWENS & MINOR INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTLINC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279	OMNICOM GROUP		252,947
OPPENHEIMER HOLDINGS INC         20,976         20,851           ORACLE CORPORATION         1,463,815         1,445,758           ORBCOMM INC         81,475         65,928           ORCHID ISLAND CAPITAL INC REIT         23,532         23,707           OREILLY AUTOMOTIVE INC         320,131         336,319           ORIGILLY AUTOMOTIVE INC         494,858         501,138           ORION GROUP HOLDINGS INC         17,117         29,492           ORTHOFIX INTERNATIONAL IN.V.         68,437         71,817           OVERSEAS SHIPHOLDING GROUP INC CLA         39,751         15,523           OVERSEAS SHIPHOLDING GROUP INC CLA         39,751         15,523           OVERSEAS MINOR INC         197,418         194,766           OWENS & MINOR INC         197,418         194,766           OWENS & MINOR INC         197,418         194,766           OWENS & MINOR INC         28,234         35,977           PACCAR INC         232,513         277,326           PACCAR INC         232,513         277,326           PACCAR INC         28,234         35,977           PACHIEL PROMEITS BANCORP         57,740         93,571           PAPA JOHNIN INTLINC         200,733         241,079	ONE GAS INC	160,608	208,638
ORACLE CORPORATION         1,463,815         1,445,758           ORBCOMM INC         81,475         65,928           ORCHID ISLAND CAPITAL INC REIT         23,532         23,707           OREILLY AUTOMOTIVE INC         320,131         336,319           OREILLY AUTOMOTIVE INC         494,858         501,138           ORION GROUP HOLDINGS INC         17,117         29,492           ORTHOFIX INTERNATIONAL N.V.         68,437         71,817           OVERSEAS SHIPHOLDING GROUP INC CL A         39,751         15,523           OVERSTOCK, COM INC         24,958         30,048           OWENS & MINOR INC         197,418         194,766           OWENS & MINOR INC         197,418         194,766           OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER HANNIEIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041	ONEOK INC	113,981	163,331
ORBCOMM INC         81,475         65,928           ORCHID ISLAND CAPITAL INC REIT         23,532         23,701           OREILLY AUTOMOTIVE INC         320,131         336,319           OREILLY AUTOMOTIVE INC         494,858         501,138           ORION GROUP HOLDINGS INC         17,117         29,492           ORTHOFIX INTERNATIONAL N.V.         68,437         71,817           OVERSEAS SHIPHOLDING GROUP INC CL A         39,751         15,523           OVERSTOCK.COM INC         24,958         30,048           OWENS & MINOR INC         197,418         194,766           OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACCAR INC         232,513         277,326           PACCER INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALIO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL, INC         200,733         241,079           PARK STERLING CORP         37,645         53,2279           PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PAYCHEX INC         205,461         239,867           PAYCHEX	OPPENHEIMER HOLDINGS INC	20,976	20,851
ORCHID ISLAND CAPITAL INC REIT         23,532         23,707           OREILLY AUTOMOTIVE INC         320,131         336,319           OREILLY AUTOMOTIVE INC         494,858         501,138           ORION GROUP HOLDINGS INC         17,117         29,492           ORTHOFIX INTERNATIONAL N.V.         68,437         71,817           OVERSEAS SHIPHOLDING GROUP INC CL A         39,751         15,523           OVERSEAS SHIPHOLDING GROUP INC CL A         39,751         15,523           OWENS & MINOR INC         197,418         194,766           OWENS & MINOR INC         197,418         194,766           OWENS & MINOR INC         197,418         194,766           OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACCAR INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC ETHANOL INC         20,333         241,079           PAPA JOHNS INTL INC         200,733         241,079           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER HANNIFIN CORP         175,752         238,280	ORACLE CORPORATION	1,463,815	1,445,758
OREILLY AUTOMOTIVE INC         320,131         336,319           OREILLY AUTOMOTIVE INC         494,858         501,38           ORION GROUP HOLDINGS INC         17,117         29,492           ORTHOFIX INTERNATIONAL N.V.         68,437         71,817           OVERSEAS SHIPHOLDING GROUP INC CL A         39,751         15,523           OVERSTOCK.COM INC         24,958         30,048           OWENS & MINOR INC         197,418         194,766           OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACCAR INC         232,513         277,326           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER DRILLING CO         27,685         32,279           PATICK INDS INC         194,899         108,041           PAYCHEX INC         205,461         239,867           PAYCHEX INC         197,021         179,322           PAYPAL HOLDINGS INC         152,647         565,013           PAYPAL HOLDINGS	ORBCOMM INC	81,475	65,928
OREILLY AUTOMOTIVE INC         494,858         50,138           ORION GROUP HOLDINGS INC         17,117         29,492           ORTHOFIX INTERNATIONAL N.V.         68,437         71,817           OVERSEAS SHIPHOLDING GROUP INC CL A         39,751         15,523           OVERSTOCK.COM INC         24,958         30,048           OWENS & MINOR INC         197,418         194,766           OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACCAR INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PAYCHEX INC         59,489         108,041           PAYCHEX INC         197,021         179,322           PAYPAL HOLDINGS INC         197,021         179,322           PAYPAL HOLDINGS	ORCHID ISLAND CAPITAL INC REIT	23,532	23,707
ORION GROUP HOLDINGS INC         17,117         29,492           ORTHOFIX INTERNATIONAL N.V.         68,437         71,817           OVERSEAS SHIPHOLDING GROUP INC CL A         39,751         15,523           OVERSTOCK, COM INC         24,958         30,048           OWENS & MINOR INC         197,418         194,766           OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACCEAR INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOL	O'REILLY AUTOMOTIVE INC	320,131	336,319
ORTHOFIX INTERNATIONAL N.V.         68,437         71,817           OVERSEAS SHIPHOLDING GROUP INC CL A         39,751         15,523           OVERSTOCK.COM INC         24,958         30,048           OWENS & MINOR INC         197,418         194,766           OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACCAR INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCHEX INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC	O'REILLY AUTOMOTIVE INC	494,858	501,138
OVERSEAS SHIPHOLDING GROUP INC CL A         39,751         15,523           OVERSTOCK. COM INC         24,958         30,048           OWENS & MINOR INC         197,418         194,766           OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACCAR INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PAYCHEX INC         59,489         108,041           PATTECK INDS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC	ORION GROUP HOLDINGS INC	17,117	29,492
OVERSTOCK.COM INC         24,958         30,048           OWENS & MINOR INC         197,418         194,766           OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACCAR INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCHEX INC         205,461         239,867           PAYCHEX INC         310,012         34,865           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         31,012         38,146           POL SIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         18	ORTHOFIX INTERNATIONAL N.V.	68,437	71,817
OWENS & MINOR INC         197,418         194,766           OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACCAR INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCHEX INC         205,461         239,867           PAYOHAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         <	OVERSEAS SHIPHOLDING GROUP INC CL A	39,751	15,523
OWENS REALTY MORTGAGE INC REIT         12,381         13,520           PACCAR INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCHEX INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENUMBRA INC         53,	OVERSTOCK.COM INC	24,958	30,048
PACCAR INC         232,513         277,326           PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYOBA SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         197,021         179,322           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         59,874         61,62	OWENS & MINOR INC	197,418	194,766
PACIFIC ETHANOL INC         28,234         35,977           PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATTICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYPAL HOLDINGS INC         197,021         179,322           PAYPAL HOLDINGS INC         197,021         179,322           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         117,38,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         43,273         61,642           PEOPLES BANC INC         59,87	OWENS REALTY MORTGAGE INC REIT	12,381	13,520
PACIFIC PREMIER BANCORP         57,740         93,571           PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         118,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         43,273         61,642           PEOPLES UNITED FINANCIAL, INC         53,943         62,126           PERKINELMER INC <td< td=""><td>PACCAR INC</td><td>232,513</td><td>277,326</td></td<>	PACCAR INC	232,513	277,326
PALO ALTO NETWORKS         278,754         237,595           PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         31,012         38,146           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         53,943         62,126           PERKINELMER INC         59,874         61,624           PERKINGO CO PLC         285,041 <td< td=""><td>PACIFIC ETHANOL INC</td><td>28,234</td><td>35,977</td></td<>	PACIFIC ETHANOL INC	28,234	35,977
PAPA JOHNS INTL INC         200,733         241,079           PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         43,273         61,642           PEOPLES BANC INC         53,943         62,126           PERKINELMER INC         59,874         61,224           PERRIGO CO PLC         285,041         148,233           PETMED EXPRESS INC         34,028         <	PACIFIC PREMIER BANCORP	57,740	93,571
PARK STERLING CORP         37,944         54,371           PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         43,273         61,642           PEOPLES UNITED FINANCIAL, INC         59,874         61,224           PERRIGO CO PLC         285,041         148,233           PETMED EXPRESS INC         34,028         46,463           PFIZER INC         1,414,366	PALO ALTO NETWORKS	278,754	237,595
PARKER DRILLING CO         27,685         32,279           PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         43,273         61,642           PEOPLES UNITED FINANCIAL, INC         53,943         62,126           PERKINELMER INC         59,874         61,224           PERRIGO CO PLC         285,041         148,233           PETMED EXPRESS INC         34,028         46,463           PFIZER INC         1,414,366         2,496,153           PG & E CORP         89,431         7	PAPA JOHNS INTL INC	200,733	241,079
PARKER HANNIFIN CORP         175,752         238,280           PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENTAIR PLC         129,165         131,989           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         43,273         61,642           PEOPLES UNITED FINANCIAL, INC         53,943         62,126           PERKINELMER INC         59,874         61,224           PERRIGO CO PLC         285,041         148,233           PETMED EXPRESS INC         34,028         46,663           PFIZER INC         1,414,366         2,496,153           PG & E CORP         344,710         390,022	PARK STERLING CORP	37,944	54,371
PATRICK INDS INC         59,489         108,041           PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         43,273         61,642           PEOPLES UNITED FINANCIAL, INC         53,943         62,126           PERKINELMER INC         59,874         61,224           PERRIGO CO PLC         285,041         148,233           PETMED EXPRESS INC         1,414,366         2,496,153           PG & E CORP         344,710         390,022           PHARMERICA CORP         89,431         78,317           PHILIP MORRIS INTERNATIONAL         1,735,93	PARKER DRILLING CO	27,685	32,279
PATTERSON COS INC         42,145         36,886           PAYCHEX INC         205,461         239,867           PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         43,273         61,642           PEOPLES UNITED FINANCIAL, INC         53,943         62,126           PERKINELMER INC         59,874         61,224           PERRIGO CO PLC         285,041         148,233           PETMED EXPRESS INC         34,028         46,463           PFIZER INC         1,414,366         2,496,153           PG & E CORP         344,710         390,022           PHARMERICA CORP         86,819         86,533           PHILIP MORRIS INTERNATIONAL         1,735,931	PARKER HANNIFIN CORP	175,752	238,280
PAYCHEX INC         205,461         239,867           PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         43,273         61,642           PEOPLES UNITED FINANCIAL, INC         53,943         62,126           PERKINELMER INC         59,874         61,224           PERRIGO CO PLC         285,041         148,233           PETMED EXPRESS INC         34,028         46,463           PFIZER INC         1,414,366         2,496,153           PG & E CORP         344,710         390,022           PHARMERICA CORP         86,819         86,533           PHILIP MORRIS INTERNATIONAL         1,735,931         1,775,089           PHILIP MORRIS INTERNATIONAL <td< td=""><td>PATRICK INDS INC</td><td>59,489</td><td>108,041</td></td<>	PATRICK INDS INC	59,489	108,041
PAYCOM SOFTWARE INC         197,021         179,322           PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         43,273         61,642           PEOPLES UNITED FINANCIAL, INC         53,943         62,126           PERKINELMER INC         59,874         61,224           PERRIGO CO PLC         285,041         148,233           PETMED EXPRESS INC         34,028         46,463           PFIZER INC         1,414,366         2,496,153           PG & E CORP         344,710         390,022           PHARMERICA CORP         86,819         86,533           PHILIP MORRIS INTERNATIONAL         1,735,931         1,775,089           PHILIP MORRIS INTERNATIONAL         948,303         951,496	PATTERSON COS INC	42,145	36,886
PAYPAL HOLDINGS INC         525,647         565,013           PAYPAL HOLDINGS INC         1,738,784         1,839,302           PC CONNECTION INC         31,012         38,146           PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         43,273         61,642           PEOPLES UNITED FINANCIAL, INC         53,943         62,126           PERKINELMER INC         59,874         61,224           PERRIGO CO PLC         285,041         148,233           PETMED EXPRESS INC         34,028         46,463           PFIZER INC         1,414,366         2,496,153           PG & E CORP         344,710         390,022           PHARMERICA CORP         86,819         86,533           PHILIP MORRIS INTERNATIONAL         1,735,931         1,775,089           PHILIP MORRIS INTERNATIONAL         948,303         951,496	PAYCHEX INC	205,461	239,867
PAYPAL HOLDINGS INC       1,738,784       1,839,302         PC CONNECTION INC       31,012       38,146         PDL BIOPHARMA INC       82,781       39,485         PEGASYSTEMS INC       138,785       183,024         PENNYMAC MORTGAGE INVT TRUST REIT       117,393       130,469         PENTAIR PLC       129,165       131,989         PENUMBRA INC       185,731       162,435         PEOPLES BANC INC       43,273       61,642         PEOPLES UNITED FINANCIAL, INC       53,943       62,126         PERKINELMER INC       59,874       61,224         PERRIGO CO PLC       285,041       148,233         PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PAYCOM SOFTWARE INC	197,021	179,322
PC CONNECTION INC       31,012       38,146         PDL BIOPHARMA INC       82,781       39,485         PEGASYSTEMS INC       138,785       183,024         PENNYMAC MORTGAGE INVT TRUST REIT       117,393       130,469         PENTAIR PLC       129,165       131,989         PENUMBRA INC       185,731       162,435         PEOPLES BANC INC       43,273       61,642         PEOPLES UNITED FINANCIAL, INC       53,943       62,126         PERKINELMER INC       59,874       61,224         PERRIGO CO PLC       285,041       148,233         PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHH CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PAYPAL HOLDINGS INC	525,647	565,013
PDL BIOPHARMA INC         82,781         39,485           PEGASYSTEMS INC         138,785         183,024           PENNYMAC MORTGAGE INVT TRUST REIT         117,393         130,469           PENTAIR PLC         129,165         131,989           PENUMBRA INC         185,731         162,435           PEOPLES BANC INC         43,273         61,642           PEOPLES UNITED FINANCIAL, INC         53,943         62,126           PERKINELMER INC         59,874         61,224           PERRIGO CO PLC         285,041         148,233           PETMED EXPRESS INC         34,028         46,463           PFIZER INC         1,414,366         2,496,153           PG & E CORP         344,710         390,022           PHARMERICA CORP         86,819         86,533           PHILIP MORRIS INTERNATIONAL         1,735,931         1,775,089           PHILIP MORRIS INTERNATIONAL         948,303         951,496	PAYPAL HOLDINGS INC	1,738,784	1,839,302
PEGASYSTEMS INC       138,785       183,024         PENNYMAC MORTGAGE INVT TRUST REIT       117,393       130,469         PENTAIR PLC       129,165       131,989         PENUMBRA INC       185,731       162,435         PEOPLES BANC INC       43,273       61,642         PEOPLES UNITED FINANCIAL, INC       53,943       62,126         PERKINELMER INC       59,874       61,224         PERRIGO CO PLC       285,041       148,233         PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHI CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PC CONNECTION INC	31,012	38,146
PENNYMAC MORTGAGE INVT TRUST REIT       117,393       130,469         PENTAIR PLC       129,165       131,989         PENUMBRA INC       185,731       162,435         PEOPLES BANC INC       43,273       61,642         PEOPLES UNITED FINANCIAL, INC       53,943       62,126         PERKINELMER INC       59,874       61,224         PERRIGO CO PLC       285,041       148,233         PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHH CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PDL BIOPHARMA INC	82,781	39,485
PENTAIR PLC       129,165       131,989         PENUMBRA INC       185,731       162,435         PEOPLES BANC INC       43,273       61,642         PEOPLES UNITED FINANCIAL, INC       53,943       62,126         PERKINELMER INC       59,874       61,224         PERRIGO CO PLC       285,041       148,233         PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHH CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PEGASYSTEMS INC	138,785	183,024
PENUMBRA INC       185,731       162,435         PEOPLES BANC INC       43,273       61,642         PEOPLES UNITED FINANCIAL, INC       53,943       62,126         PERKINELMER INC       59,874       61,224         PERRIGO CO PLC       285,041       148,233         PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHH CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PENNYMAC MORTGAGE INVT TRUST REIT	117,393	130,469
PEOPLES BANC INC       43,273       61,642         PEOPLES UNITED FINANCIAL, INC       53,943       62,126         PERKINELMER INC       59,874       61,224         PERRIGO CO PLC       285,041       148,233         PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHH CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PENTAIR PLC	129,165	131,989
PEOPLES UNITED FINANCIAL, INC       53,943       62,126         PERKINELMER INC       59,874       61,224         PERRIGO CO PLC       285,041       148,233         PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHI CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PENUMBRA INC	185,731	162,435
PERKINELMER INC       59,874       61,224         PERRIGO CO PLC       285,041       148,233         PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHI CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PEOPLES BANC INC	43,273	61,642
PERRIGO CO PLC       285,041       148,233         PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHH CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PEOPLES UNITED FINANCIAL, INC	53,943	62,126
PETMED EXPRESS INC       34,028       46,463         PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHH CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PERKINELMER INC	59,874	61,224
PFIZER INC       1,414,366       2,496,153         PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHH CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PERRIGO CO PLC	285,041	148,233
PG & E CORP       344,710       390,022         PHARMERICA CORP       89,431       78,317         PHH CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PETMED EXPRESS INC	34,028	46,463
PHARMERICA CORP       89,431       78,317         PHH CORP       86,819       86,533         PHILIP MORRIS INTERNATIONAL       1,735,931       1,775,089         PHILIP MORRIS INTERNATIONAL       948,303       951,496	PFIZER INC	1,414,366	2,496,153
PHH CORP         86,819         86,533           PHILIP MORRIS INTERNATIONAL         1,735,931         1,775,089           PHILIP MORRIS INTERNATIONAL         948,303         951,496	PG & E CORP	344,710	390,022
PHILIP MORRIS INTERNATIONAL 1,735,931 1,775,089 PHILIP MORRIS INTERNATIONAL 948,303 951,496	PHARMERICA CORP	89,431	78,317
PHILIP MORRIS INTERNATIONAL 948,303 951,496		86,819	86,533
PHILIP MORRIS INTERNATIONAL  Page 18 of 25  948,303  951,496	PHILIP MORRIS INTERNATIONAL	· ·	1,775,089
	PHILIP MORRIS INTERNATIONAL	948,303	951,496

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SECURITY NAME	COST	MARKET
PHILLIPS 66	495,482	500,746
PHOTRONICS INC	66,883	77,993
PINNACLE WEST CAP CORP	95,897	113,534
PIONEER ENERGY SERVICES CORP	28,806	46,313
PIONEER NATURAL RESOURCES CO	276,043	368,243
PIPER JAFFRAY COS	56,000	108,025
PITNEY BOWES INC	44,120	31,747
PLANET PAYMENT INC	13,663	18,446
PLEXUS CORP	160,187	188,383
PNC FINANCIAL SERVICES GROUP	574,630	726,205
POOL CORPORATION	416,052	459,618
POPULAR INC	359,533	482,984
POTBELLY CORP	32,550	31,450
POWELL INDS INC	33,084	34,437
PPG INDUSTRIES INC	343,245	311,760
PPL CORPORATION	274,195	278,052
PRA HEALTH SCIENCES INC	81,896	122,642
PRAXAIR INC	382,684	407,352
PREFERRED APARTMENT CMNTY INC REIT	26,047	35,441
PRICELINE GROUP INC	885,569	919,220
PRICELINE GROUP INC	4,527,725	4,691,392
PRIMO WATER CORP	54,360	62,800
PRINCIPAL FINANCIAL GROUP	171,658	195,220
PROCTER & GAMBLE CO	2,579,274	2,820,127
PROGRESS SOFTWARE CORP	127,213	159,905
PROGRESSIVE CORP OHIO	240,067	254,109
PROLOGIS INC REIT	276,430	337,275
PROSPERITY BANCSHARES INC	255,371	338,586
PROVIDENT FINL SVCS INC	128,341	176,309
PRUDENTIAL FINL INC	457,569	568,480
PUBLIC SERVICE ENTERPRISE GROUP INC	255,469	270,871
PUBLIC STORAGE INC REIT	441,208	428,450
PULTE GROUP INC	61,261	61,095
PVH CORP	101,138	97,098
QORVO INC	69,939	81,626
QUAD GRAPHICS INC	42,076	77,629
QUAKER CHEMICAL CORP	110,586	177,069
QUALCOMM INC	1,120,381	1,212,785
QUANTA SERVICES INCORPORATED	41,963	73,673
QUEST DIAGNOSTICS INC	126,395	174,518
QUORUM HEALTH CORPORATION	20,727	25,714
RADISYS CORP	23,466	19,691
RAIT FINANCIAL TRUST REIT	24,915	26,746
RALPH LAUREN CORP	69,600	55,908
RANGE RESOURCES CORP	83,908	90,882
RAYTHEON COMPANY Page 19 of 25	437,074	522,418

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SECURITY NAME	COST	MARKET
RE/MAX HOLDINGS INC	76,104	106,512
REAL INDUSTRY INC	26,368	16,732
REALTY INCOME CORP REIT	155,363	177,096
RED HAT INC	178,438	157,243
RED HAT INC	729,298	655,180
REGENERON PHARMACEUTICALS INC	532,169	343,229
REGIONAL MANAGEM	18,864	29,959
REGIONS FINANCIAL CORP	157,213	234,671
RENEWABLE ENERGY GROUP INC	36,572	43,563
REPUBLIC BANCORP INC	13,243	16,963
REPUBLIC SERVICES INC	136,927	178,909
RESOURCE CAPITAL CORP REIT	37,222	24,657
RESOURCES CONNECTION INC	73,300	79,137
RETAILMENOT INC	48,737	45,737
REX AMERICAN RESOURCES CORPORATION	34,343	61,719
REYNOLDS AMERICAN INC	518,251	589,261
RINGCENTRAL INC	138,423	128,668
RMR GROUP INC CL A	25,826	28,164
ROBERT HALF INTL INC	71,994	67,902
ROCKWELL AUTOMATION INC	179,411	221,626
ROCKWELL COLLINS INC	144,202	151,106
ROPER TECHNOLOGIES INC	227,169	225,371
ROSS STORES INC	254,545	331,346
ROSS STORES INC	592,125	649,440
ROWAN COMPANIES PLC	214,384	228,833
ROYAL CARIBBEAN CRUISES LTD	205,367	172,448
RPX CORP	73,098	55,901
RUBY TUESDAY INC	34,430	21,066
RUDOPLH TECHNOLOGIES INC	44,163	79,810
RUSH ENTERPRISES INC	71,207	99,081
RUSH ENTERPRISES INC CL B	22,211	30,222
RYDER SYSTEM INC	40,477	42,059
RYERSON HOLDING CORP	15,826	20,199
S&P GLOBAL INC	310,915	356,495
SALESFORCE.COM	619,381	540,355
SALESFORCE.COM	1,394,622	1,300,740
SANDERSON FARMS INC	150,032	202,522
SANMINA CORPORATION	169,141	290,158
SCANA CORP	108,877	138,353
SCANSOURCE INC	94,500	106,121
SCHLUMBERGER LTD	1,366,465	1,462,577
SCHNITZER STEEL INDS INC-A	53,166	67,308
SCHOLASTIC CORP	117,232	136,819
SCICLONE PHARMACEUTICALS INC	43,345	59,843
SCRIPPS NETWORKS INTERACT INC CL A	79,655	93,138
SEAGATE TECHNOLOGY PLC Page 20 of 25	146,270	142,641

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SECURITY NAME	COST	MARKET
SEALED AIR CORP NEW	127,032	119,199
SELECT COMFORT CORPORATION	106,830	112,625
SELECT INCOME REIT	179,310	165,866
SEMPRA ENERGY	329,004	325,369
SENECA FOODS CORP CL-A	30,401	41,572
SERITAGE GROWTH PROPERTIES REIT	78,060	68,421
SERVICENOW INC	1,058,575	1,022,324
SHENANDOAH TELECOMMUNICATION	191,974	127,600
SHERWIN WILLIAMS CO	241,577	259,872
SHOE CARNIVAL INC	39,854	46,810
SHORE BANCSHARES INC	12,501	15,098
SHUTTERFLY INC	181,983	210,756
SHUTTERSTOCK INC	124,566	92,664
SIGMA DESIGNS INC	34,517	23,118
SIGNET JEWELERS LTD	147,173	92,658
SIMON PROPERTY GROUP INC REIT	802,815	693,268
SKYWEST INC	106,746	196,611
SKYWORKS SOLUTIONS INC	181,742	175,152
SL GREEN REALTY CORP REIT	146,023	132,394
SMART & FINAL STORES INC	37,667	35,842
SMITH & WESSON HOLDING CORP	182,272	136,388
SNAP INC SER F PFD CONV	124,201	124,201
SNAP ON INC	127,146	131,707
SONIC AUTOMOTIVE INC CL A	74,340	68,837
SOUTHERN COMPANY	199,566	612,661
SOUTHWEST AIRLINES CO	364,625	398,969
SOUTHWESTERN ENERGY CO	73,156	69,097
SP PLUS CORPORATION	51,488	56,750
SPARTAN MOTORS INC	15,632	34,530
SPARTANNASH CO	111,073	154,166
SPECTRA ENERGY CORP	91,294	371,330
SPOK HOLDINGS INC	42,362	47,580
SPX CORP	74,427	108,472
ST JUDE MEDICAL INC	217,397	276,495
STANLEY BLACK & DECKER INC	200,995	215,503
STAPLES INC	86,253	60,300
STARBUCKS CORP	1,161,500	1,023,178
STARBUCKS CORP	632,084	588,512
STATE STREET CORP	319,250	353,781
STATE STREET CORP	1,098,070	1,215,852
STEPAN COMPANY	128,350	163,041
STERICYCLE INC	134,575	85,206
STERLING BANCORP	205,953	308,833
STERLING CONSTRUCTION CO INC	18,085	19,560
STEWART INFORMATION SVCS CORP	94,544	107,412
STILLWATER MINING COMPANY	167,430	212,443
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SECURITY NAME		COST	MARKET
STONERIDGE INC		54,091	53,123
STRYKER CORPORATION		367,710	460,070
STRYKER CORPORATION		905,077	1,056,964
STURM RUGER & CO INC		115,661	105,874
SUFFOLK BANCORP		30,966	39,951
SUMMIT HOTEL PROPERTIES REIT		121,624	147,588
SUNTRUST BANKS INC		52,309	346,652
SUPERIOR INDS INTL INC		69,754	64,452
SUPERNUS PHARMACEUTICALS INC		90,519	126,553
SUPREME INDS INC CL A		16,538	18,966
SURMODICS INC		37,277	34,011
SYKES ENTERPRISES INC		125,219	123,174
SYMANTEC CORPORATION		175,854	195,062
SYNCHRONY FINANCIAL		317,555	376,519
SYNNEX CORP		278,815	362,092
SYSCO CORP		258,802	345,066
T ROWE PRICE GROUP INC		235,789	235,639
TARGET CORP		553,395	523,306
TASER INTERNATIONAL INC		117,071	122,267
TAYLOR MORRISON HOME CORP		56,567	62,422
TD AMERITRADE HOLDING CORP		960,367	1,284,194
TE CONNECTIVITY LIMITED		277,810	303,377
TECH DATA CORP		278,270	315,518
TEGNA INC		62,963	50,160
TELEPHONE AND DATA SYSTEMS INC		273,824	281,656
TENCENT HLDGS LTD UNSPONS ADR		671,163	862,232
TERADATA CORP		42,074	39,831
TERRITORIAL BANCORP INC		38,656	44,925
TESLA INC		1,186,989	1,218,033
TESORO CORPORATION		160,019	132,574
TEXAS INSTRUMENTS INC		723,719	904,244
TEXTRON INC		143,670	166,027
TEXTRON INC		435,255	500,168
THE COCA-COLA COMPANY		55,033,629	2,532,952,887
THE HERSHEY COMPANY		159,068	186,277
THE MOSAIC COMPANY		143,600	122,277
THERMO FISHER SCIENTIFIC INC		652,899	705,500
TIFFANY & CO		116,139	113,435
TILE SHOP HLDGS INC		71,248	70,908
TIME INC		198,632	192,691
TIME WARNER INC		747,804	958,832
TITAN INTERNATIONAL INC		47,668	51,779
TITAN MACHINERY		22,479	26,474
TJX COS INC		596,932	612,385
T-MOBILE US INC		591,205	897,156
TOPBUILD CORP	Page 22 of 25	150,622	141,332

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SECURITY NAME	COST	MARKET
TORCHMARK CORP	70,420	88,881
TOTAL SYSTEM SERVICES INC	122,332	110,023
TOWNE BANK	135,517	205,219
TRACTOR SUPPLY CO	153,816	127,133
TRACTOR SUPPLY CO	897,221	762,952
TRANSDIGM GROUP INC	173,068	162,073
TRANSOCEAN LTD	85,105	82,338
TRAVELERS COMPANIES INC	402,391	431,898
TREX COMPANY INC	169,438	194,230
TRINITY INDUSTRIES INC	378,600	447,158
TRINSEO SA	182,571	233,523
TRIPADVISOR INC	122,191	69,462
TRIPLE-S MANAGEMENT CORP CL B	54,101	53,882
TRISTATE CAPITAL HOLDINGS INC	34,065	60,333
TRITON INTERNATIONAL LTD OF BERMUDA	59,385	63,532
TRIUMPH BANCORP INC	32,938	49,424
TRUEBLUE INC	126,270	107,301
TRUECAR INC	55,464	70,588
TRUPANION INC	25,908	26,710
TRUSTMARK CORP	180,273	263,953
TTM TECHNOLOGIES INC	54,119	98,695
TUESDAY MORNING CORP	28,547	26,492
TUTOR PERINI CORP	67,013	111,776
TWENTY-FIRST CENTURY FOX INC CL A	403,996	374,727
TWENTY-FIRST CENTURY FOX INC CL B	192,487	178,951
TWO HARBORS INVT CORP REIT	301,842	311,679
TYSON FOODS INC CL A	168,310	231,300
UBER TECHNOLOGIES CONV PFD SER G	132,856	132,849
UDR INC REIT	111,194	116,663
ULTA BEAUTY INC	163,256	203,952
ULTRA CLEAN HOLDINGS	16,961	33,717
UMPQUA HLDGS CORP	233,490	263,990
UNDER ARMOUR INC CL C	103,732	55,852
UNDER ARMOUR INC-CL A	108,536	64,026
UNION BANKSHARES CORPORATION	121,070	169,979
UNION PAC CORP	941,353	1,084,389
UNITED CMNTY FINL CORP OHIO	35,778	43,734
UNITED CONTINENTAL HOLDINGS INC COM	222,264	280,807
UNITED FINANCIAL BANCORP, INC.	71,939	99,717
UNITED FIRE GROUP, INC.	82,944	107,977
UNITED NAT FOODS INC	218,283	254,682
UNITED PARCEL SERVICE CL B	894,704	996,909
UNITED RENTALS INC	73,729	104,207
UNITED STATES CELLULAR CORP	60,560	65,799
UNITED STATES STEEL CORP	333,063	509,311
UNITED TECHNOLOGIES CORP Page 23 of 25	90,023	1,073,070

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SECURITY NAME	COST	MARKET
UNITEDHEALTH GROUP INC	1,430,697	1,904,796
UNITEDHEALTH GROUP INC	1,613,857	2,160,540
UNIVERSAL CORP VA	157,745	180,986
UNIVERSAL ELECTRONICS INC	121,897	107,928
UNIVERSAL FOREST PRODUCTS INC	158,680	217,439
UNIVERSAL HEALTH SVCS INC	137,366	120,848
UNIVEST CORPORATION OF PENNSYLVAN	IA 31,540	49,038
UNUM GROUP	111,708	137,501
URBAN OUTFITTERS INC	42,929	37,537
US BANCORP NEW	857,320	1,025,499
US PHYSICAL THERAPY INC	66,241	92,453
USA TECHNOLOGIES INC	11,674	18,172
USANA HEALTH SCIENCES INC	73,378	69,156
V.F. CORP	281,204	221,349
VALERO ENERGY CORP	358,116	383,344
VALIDUS HOLDINGS LTD	201,690	247,160
VARIAN MEDICAL SYSTEMS INC	78,858	91,755
VASCULAR SOLUTIONS INC	63,694	105,300
VECTRUS INC	18,575	26,402
VENTAS INC REIT	256,321	285,216
VERISIGN INC	90,197	82,536
VERISK ANALYTICS INC	139,267	155,928
VERITIV CORP	36,218	46,118
VERIZON COMMUNICATIONS	1,098,955	2,755,262
VERTEX PHARMACEUTICALS INC	358,754	218,800
VERTEX PHARMACEUTICALS INC	1,054,199	744,067
VIACOM INC-B	211,129	149,386
VIAD CORP	64,044	91,199
VILLAGE SUPER MKT INC CL A	20,432	23,886
VISA INC CL A	1,873,901	1,858,905
VISA INC CL A	3,407,604	3,409,474
VISHAY INTERTECHNOLOGY INC	155,744	235,175
VISHAY PRECISION GROUP	21,150	33,340
VISTA OUTDOOR INC VONAGE HOLDINGS CORP	269,645 122,061	232,433
VORNADO REALTY TRUST REIT	218,426	136,329 226,379
VULCAN MATERIALS CO	156,188	205,621
VULCAN MATERIALS CO	540,967	700,840
WABASH NATL CORP	79,055	105,171
WAL MART STORES INC	1,094,857	1,313,971
WALGREENS BOOTS ALLIANCE INC	923,735	901,753
WALKER & DUNLOP	83,676	89,263
WASHINGTON FEDERAL INC	219,849	302,795
WASTE MANAGEMENT INC	279,326	363,485
WATERS CORP	138,806	143,797
WATERSTONE FINANCIAL, INC.	33,556	46,074
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SECURITY NAME	COST	MARKET
WAYFAIR INC	130,355	109,111
WEC ENERGY GROUP INC	200,790	227,093
WEIS MARKETS INC	73,032	109,016
WELLS FARGO & CO	3,126,154	3,126,666
WELLTOWER INC REIT	285,180	286,862
WESCO INTERNATIONAL INC	226,333	271,857
WEST MARINE INC	29,628	30,447
WESTERN ASSET MORTGAGE CAPITAL REIT	44,998	41,096
WESTERN DIGITAL CORP	212,467	232,797
WESTERN UNION CO	125,644	140,985
WESTROCK CO	157,840	163,530
WEYERHAEUSER CO REIT	259,232	277,159
WHIRLPOOL CORPORATION	152,997	175,772
WHOLE FOODS MKT INC	111,544	113,935
WILLIAM LYONS HOMES	37,076	40,020
WILLIAMS COS INC	319,304	258,400
WILLIS TOWERS WATSON PLC	200,623	204,452
WINDSTREAM HOLDINGS INC	78,847	68,968
WINTRUST FINANCIAL CORP	220,680	314,664
WORKDAY INC-CLASS A	536,925	462,630
WORLD WRESTLING ENTERTAINMENT, INC	64,112	63,590
WYNDHAM WORLDWIDE CORP	121,633	115,777
WYNN RESORTS LTD	85,766	98,621
XACTLY CORP	22,569	18,722
XCEL ENERGY INC	223,370	252,625
XENCOR INC	74,883	92,488
XEROX CORP	97,457	90,801
XILINX INC	156,126	192,761
XL GROUP LTD	143,702	139,315
XO GROUP INC	42,323	46,602
XYLEM INC	104,535	122,512
YADKIN FINANCIAL CORPORATION	70,157	100,108
YAHOO INC	401,019	433,413
YUM! BRANDS INC	244,600	293,091
YUM! BRANDS INC	358,874	367,314
ZAGG INC	28,641	23,544
ZELTIQ AESTHETIC	126,383	159,805
ZIMMER BIOMET HOLDINGS INC	267,091	265,430
ZIONS BANCORPORATION	87,623	119,694
ZOETIS INC	283,659	343,448
ZYNGA INC	234,796	208,928

399,962,405 2,927,882,263

#### ROBERT W. WOODRUFF FOUNDATION, INC. - # 58-1695425 Form 990-PF, Year 2016, Page 2, Part III, Line 3

Grants of The Coca-Cola Company common stock - NON-TAXABLE GAIN:

Emory University
University of Georgia Foundation

DATE	SHARES	PRICE	GRANT AMOUNT	COST		N	NON-TAXABLE GAIN	
12/13/16	430,479	\$41.90	\$ 18,037,070	\$	391,617	\$	17,645,453	
12/13/16	715,991	\$41.90	\$ 30,000,023	\$	651,353	\$	29,348,670	

TOTAL - Other increases not included in line 2

\$ 46,994,123

#### ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425 Form 990-PF, Year 2016, Page 6, Part VII-B, Line 5c

#### AGREEMENT RE: EXPENDITURE RESPONSIBILITY

This Agreement Re Expenditure Responsibility is made and entered into as of the 17th day of December, 2015, by and between the Robert W. Woodruff Foundation, Inc. ("Grantor") and Ichauway, Inc. ("Grantee").

WHEREAS, Grantor has agreed to make a grant of \$9,785,000 to Grantee contingent upon certain requirements and conditions; and

WHEREAS, Grantor and Grantee wish to set forth those requirements and conditions in writing;

NOW THEREFORE, Grantor and Grantee agree as follows:

- 1. Grantor shall make a grant of \$9,785,000 to Grantee for operating and capital expenses of the Joseph W. Jones Ecological Research Center in 2016. Grantee shall use the grant for operating and capital expenditures in accordance with the budget approved by its trustees. Grantee hereby agrees to repay any portion of the grant not used for such purposes.
- 2. Grantee hereby agrees to submit to Grantor full and complete annual reports on the manner in which the grant is spent and the progress made in accomplishing the purposes of the grant.
- 3. Grantee hereby agrees to maintain records of receipts and expenditures and to make its books and records available to Grantor at any reasonable time.
- 4. Grantee shall not use any of the grant
  - a) to carry on propaganda or otherwise to attempt to influence legislation (within the meaning of Section 4945 (d)(1) of the Internal Revenue Code).
  - b) to influence the outcome of any specific public election, or to carry on, directly or indirectly, any voter registration drive (within the meaning of Section 4945 (d)(2) of the Internal Revenue Code),
  - c) to make any grant which does not comply with the requirements of Section 4945 (d)(3) or (4) of the Internal Revenue Code, or
  - d) to undertake any activity for any purpose other than one specified in Section 170(c)(2)(B) of the Internal Revenue Code.

ROBER	T W. WOODRUFF FOUNDATION, INC.
Name: By:	R. Russell Hardin
Title:	President
ICHAU	WAY, INC. d/b/a Joseph W. Jones Ecological Research Center
Name: By:	Lindsay R. Boring
Title:	Director

#### ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425 Form 990-PF, Year 2016, Page 6, Part VII-B, Line 5c

#### AGREEMENT RE: EXPENDITURE RESPONSIBILITY

This Agreement Re Expenditure Responsibility is made and entered into as of the 21st day of December, 2016, by and between the Robert W. Woodruff Foundation, Inc. ("Grantor") and Ichauway, Inc. ("Grantee").

WHEREAS, Grantor has agreed to make a grant of \$9,975,000 to Grantee contingent upon certain requirements and conditions; and

WHEREAS, Grantor and Grantee wish to set forth those requirements and conditions in writing;

NOW THEREFORE, Grantor and Grantee agree as follows:

- 1. Grantor shall make a grant of \$9,975,000 to Grantee for operating and capital expenses of the Joseph W. Jones Ecological Research Center in 2017. Grantee shall use the grant for operating and capital expenditures in accordance with the budget approved by its trustees. Grantee hereby agrees to repay any portion of the grant not used for such purposes.
- 2. Grantee hereby agrees to submit to Grantor full and complete annual reports on the manner in which the grant is spent and the progress made in accomplishing the purposes of the grant.
- 3. Grantee hereby agrees to maintain records of receipts and expenditures and to make its books and records available to Grantor at any reasonable time.
- 4. Grantee shall not use any of the grant
  - a) to carry on propaganda or otherwise to attempt to influence legislation (within the meaning of Section 4945 (d)(1) of the Internal Revenue Code),
  - b) to influence the outcome of any specific public election, or to carry on, directly or indirectly, any voter registration drive (within the meaning of Section 4945 (d)(2) of the Internal Revenue Code),
  - c) to make any grant which does not comply with the requirements of Section 4945 (d)(3) or (4) of the Internal Revenue Code, or
  - d) to undertake any activity for any purpose other than one specified in Section 170(c)(2)(B) of the Internal Revenue Code.

ROBERT	TW. WOODRUFF FOUNDATION, INC.
Name: By:	PRussell Hardin
Title:	President
ICHAUV	VAY, INC. d/b/a Joseph W. Jones Ecological Research Center
Name:	Mosay ( Looning
By:	Lindsay R. Boring
Title:	Director

# Director's 2016 Annual Report to the Trustees of Ichauway, Inc.



photo by Richard T. Bryant

April 4, 2017

Submitted by Lindsay R. Boring, Ph.D. Director

# **Introduction and Summary**

The Joseph W. Jones Ecological Research Center at Ichauway seeks to understand, to demonstrate, and to promote excellence in natural resource management and conservation of the landscape of the southeastern Coastal Plain of the United States.

This past year was very productive and characterized by advances with key long-term projects as well as growth in some new directions. The staff increased the quality of research publications, continued to deliver impactful information to students and professionals, and maintained the high state of natural resource stewardship of Ichauway. There has also been an increase in the capacity of the Operations section to steward the historic facilities and physical plant of the Jones Center. However, there has been no net increase in the number of 84 permanent employees.

This was a major transitional year implementing new projects and expanding existing ones. This is driven in part by new research staff in Ecohydrology and Forest Ecology who have made early progress with their research. The research and education programs are more integrated than in prior years, and personnel demonstrate excellent teamwork. New scientists are filling critical niches that combine elements of our forest research with ongoing research on watersheds and wildlife, and we continue integrating our research-education-conservation programs.

The Center's synthesis book <u>Ecological Restoration and Management of Longleaf Pine Ecosystems</u> is now in press for a July 2017 release. It serves a critical role in assessing cumulative knowledge from the Center's research contributions over the years. It also connects Center work to other programs and regions, and provides guidance for the direction of future research, education and conservation management. It is a big milestone as a publication, but it is matched by a strong journal publication year, both in numbers as well as by quality and potential impact in lead journals.

Center achievements are made possible by the long-term programs that have been maintained through internal funding and the strong teamwork of staff, graduate students and off-site collaborators. The programs evolve over time but the long-term studies, demonstrations and experiments on Ichauway provide great resources for research and education. The power of field demonstrations coupled with decadal long-term studies and data are a core resource to scientists and educators, including our staff, students, and outside cooperators. The Center has also been successful at attracting outside collaborators such as the National Ecological Observatory Network and University of Alabama ecologists who are sharing expensive and remarkably elaborate environmental sensor systems and technologies with our organization.

There have been many new program elements, technologies and achievements gained this past year. However, most of them build upon long-term studies, data sets and experiments that have been maintained over decades at the Jones Center. They contribute knowledge and educational transfer to students, natural resource managers and policy makers who must address real-world issues related to conservation of forests, wildlife and water resources.

With the current Director's retirement in 2017, the Center, its long-term programs, and diverse personnel are well poised to adapt to new leadership and rise to new challenges. The Center has many great attributes to attract an excellent new Director. Assets include close teamwork of staff, dedicated support and funding from the Woodruff Foundation, Ichauway and its excellent management, a list of impressive and committed long-term advisors, extensive connections with other organizations, and the long-term research and education programs. Also, the Jones Center does not have large and cumbersome state and federal governmental structures and policies which can and do curtail productivity and contributions of scientists, educators and land managers in larger institutions.

# **Jones Center Advisory Committee (JCAC)**

The Jones Center Advisory Committee (JCAC), Jim Vose, Gene Likens, Jerry Franklin, Bob Larimore, Nova Silvy, and Bern Sweeney convened at Ichauway 7-9 February 2017. The JCAC spent this time in meetings, and discussions and field tours with members of the Woodruff Foundation, Center staff, graduate students, and support personnel. The following is quoted from their report:

"The JCAC was impressed with the accomplishments and activities of the Center's programs and staff in 2016. The committee was appreciative of the responsiveness of the Center to recommendations and concerns raised in last year's report. In particular, we were pleased with the continued high level of integration among research, conservation and education programs. The completion of the book represents a hallmark achievement for the Center. We see this not only as a significant synthesis of the state-of-the knowledge, but also as a foundation for thinking about high priority areas to focus on in the future. There also were several significant, synthetic, and integrative papers that have been published in high-profile journals. Publications by all Center scientific staff should continue to be the highest priority; especially those that are synthetic, integrative, and reflect the knowledge and wisdom gained from what is now a mature research program. Increasing scientific capacity through both post-doctoral positions and permanent hiring should continue to be a priority in 2017.

The format of the meeting was highly effective. Providing time for field tours and open discussion facilitated a high level of interaction among Center staff and the JCAC and resulted in a very productive review process. The JCAC is fully committed to assisting the transition of the new Center Director."

#### Research

#### General

Jones Center funded research is organized into five long-term integrated projects, described in more detail below. The recent addition of two new scientists, Dr. Steven Brantley and Dr. Seth Bigelow, has expanded our research program on longleaf pine ecosystems with new emphasis upon ecohydrology and adaptive silviculture. This past year we conducted a research workshop on "Adaptive Silviculture for Climate Change" to refine new project goals and coordinate with other forest researchers. We also conducted a research workshop on "Hydrologic Connectivity" to connect our water research team with other researchers who conduct similar research. A third highlight was the completing of the synthesis book <a href="Ecological Restoration and Management of Longleaf Pine Forests">Ecological Restoration and Management of Longleaf Pine Forests</a> which was edited by two of our scientists and written with many of our staff, outside advisors, collaborators, and former students.

Our research activities are led by our scientists but are enhanced by visiting scientists, and over 75 other scientists and collaborators. We supported 22 graduate students from six universities, and added two new externally funded research projects to the twelve ongoing projects from twelve agencies.

# **Research Projects**

The six long-term research projects are complemented with additional but related externally funded projects that either expand our Ichauway projects, or extend our studies to be regional in scope with other valuable sites, cooperators and issues outside of Ichauway. In 2016 these were key project goals and achievements for each long-term project:

 Ecological Forestry in the Longleaf Pine Forest Type-Management to Sustain and Restore the Ecosystem and Reconnect the Landscape Investigators: Seth Bigelow, Mike Conner, Steve Jack, Kay Kirkman, Kevin McIntyre, and Lora Smith

**Collaborators**: Lindsay Boring, Jean Brock, and Jimmy Atkinson

The goal for this project is to meet the challenge of providing sound management information supported by a strong scientific understanding through coordinated research, outreach and demonstration efforts. The two project focal areas are: 1) management of longleaf plantations to achieve a multi-aged condition sustained by natural regeneration and with a diverse plant community, and assessment of wildlife community use at different stages of stand development during the restoration process; and 2) assessing long-term effects of 3 uneven-aged harvest treatments on longleaf overstory and regeneration, the ground cover community, wildlife communities, fuels distribution and fire behavior.

Field work with this project involved continuing long-term periodic measurements, with no major operational activities. In January 2016 the Jones Center hosted a workshop on Adaptive Silviculture for Climate Change in conjunction with the national network with research sites across the country. Subsequent to the workshop the Center agreed to join the network and establish plots on Ichauway; this work is now conducted as a separate research project.

The major effort associated with this project in 2016 was completion of our book, Ecological Restoration and Management of Longleaf Pine Forests, a synthesis of basic and applied research based largely upon work conducted at the Jones Center but also including work reported in the literature. Edited by **Kay Kirkman** and **Steve Jack** with 17 chapters plus Foreword and Preface; 12 current staff were lead or co-authors for the chapters. Other achievements include:

- Continued measurements of longleaf pine regeneration, hardwood sprout development, fire mortality of hardwoods stems, and cone predation in the Ecological Forestry plots.
- Assessed establishment of seeded ground cover in plantations under study for the Restoration project, and measured survival of longleaf pine seedlings underplanted in slash pine plantations.
- Monitored small mammal and bird use of plantations included in the Restoration project to assess their use at different stages of stand development.
- Soils were sampled in the long-term restoration plantation and old field stands to monitor carbon and nitrogen profiles following thinning and/or planting treatments.
- Supervision of 9 graduate students associated with this project; 6
  presentations made at national and regional meetings; 12 manuscripts
  published, in press or submitted; 4 proposals funded by external agencies; and
  multiple outreach events of variable duration.
- 2) Adaptive Silviculture for Climate Change in Southeastern USA Investigators: Seth Bigelow, Steve Jack, Steven Brantley, Mike Conner, Lora Smith, and Kay Kirkman Lead Research Technicians: Lisa Giencke, Jen Howze, Andy Whelan, Gail

**Lead Research Technicians**: Lisa Giencke, Jen Howze, Andy Whelan, Gail Morris, Stribling Stuber, and Mary Frances Nieminen

The project, part of a nation-wide study, is designed to test alternative silvicultural strategies for preparing stands in anticipation of impacts from a changing climate. It incorporates long-standing research questions regarding the role of oaks in longleaf pine savannahs. Goals of the project are to test strategies of resistance, resilience, and transition to future climates with respect to 1) tree survival and growth, 2) continuity and effectiveness of prescribed fire, 3) herpetofauna

abundance, 4) evapotranspiration and water yield, 5) wildlife activity, and 6) ground cover composition. We collected site data from >500 inventory plots and carried out a soil survey to allow us to finalize stand locations, and we conducted a series of studies on prescribed fire intensity and severity as influenced by tree density and species identity.

A three-day workshop was held in January 2016 with staff of the national Adaptive Silviculture for Climate Change project to educate local and regionally-based scientists about silvicultural approaches to climate change. This assisted the planning for experimental prescriptions that are tailored for local conditions and which test resistance, resilience, and transition strategies for forest management to adapt to uncertain future climate and disturbance regimes.

#### 3) Longleaf Pine Ecosystem Study

**Investigators:** Steven Brantley, Lindsay Boring, Kay Kirkman, Mike Conner, Scott Taylor, Lisa Giencke, Gail Morris, and Stribling Stuber

The Longleaf Pine Ecosystem Study is a continuation of work started more than a decade ago to understand the complex feedback mechanisms between fire regime, site resources, productivity, and species in guiding ecosystem management and restoration efforts. That original project has created numerous opportunities for outside collaboration and graduate student mentoring, and has resulted in a number of critical long-term data sets and a recent publication in Ecology (Kirkman et al. 2016). Continuing efforts are being made to update the research, education, and outreach opportunities associated with the project. In 2008, the three Eddy-Flux towers were included in the project to pursue questions about the interactions of fire and soil water availability in regulating C dynamics in longleaf pine woodlands. CO<sub>2</sub> and other emissions related to prescribed fire are of special importance. In 2015, it included "Fire Exclusion and Reintroduction" to contrast burned and fire suppressed plots to address forest water use and forest health. The project now includes key Ecohydrology research by **Dr. Steven Brantley**'s lab. The localized tower meteorological information and the continuous water vapor data from three unique site/soil types provide information necessary for investigating forest hydrology and water budgets. Current Research Objectives are:

- Determine fire and climate influences upon CO<sub>2</sub> emissions, C cycling, forest water use, and hydrologic processes using eddy covariance.
- Examine changes in the longleaf pine-wiregrass ecosystem in the absence
  of fire, as fire is reintroduced to suppressed areas, and in comparison to fire
  maintained woodlands. Also, examine fire effects on tree stress and pine
  bark beetle communities.
- Measure changes in plants, small mammals, and birds in response to fire suppression and reintroduction.

- We completed an external project on long-term ecosystem inventories:
   Assessing availability and scalability of C and N data for ecosystem models.
- We supported 2 doctoral students and published 2 major papers in lead journals.
- 4) Hydrologic Variation and Human Development in the Lower Flint River Basin: An Ongoing Landscape-Scale Experiment Investigators: Steve Golladay and Steven Brantley Lead Research Technicians: Chelsea Smith and Stribling Stuber

Our ongoing research is assessing the effects of water withdrawals and land use on water resources of the lower Flint River Basin (FRB). Since the 1970's, population growth, reforestation, and rapid expansion of irrigated agriculture in southwestern Georgia have led to increased water demands from agriculture, forestry, industry, and municipalities. These increased demands have stressed regional water resources, particularly during droughts, and have likely negatively impacted aquatic biota and ecosystem services. Our research addresses three fundamental questions associated with human activity in the lower FRB: (1) how does human land use and appropriation of water influence water quality and quantity in the lower FRB; (2) how does temporal variation in water availability affect aquatic ecosystems of the lower FRB; and (3) what management actions are necessary to provide for human demand while maintaining ecosystem services. Selected accomplishments include:

- Organized a workshop entitled "Hydrologic Connectivity: Bridging Terrestrial and Aquatic Ecosystems in a Karst Landscape," July 18-21, 2016. The workshop helped frame our rationale for future priorities for regional water resources research with well-defined applications to management and conservation challenges. Additionally, at least one new collaboration resulted directly from the workshop.
- Studies of sediments, invasive bivalves, and invasive vegetation revealed that a novel combination of species in Lake Seminole is reducing concentrations of, and sequestering nutrients and metals from upstream runoff. Results were published in Biological Invasions Record. Several other manuscripts based on Lake Seminole invasive species research are in review (Freshwater Biology, Aquatic Ecology).
- A time-series of land cover data was used along with published ET values to estimate changes in water yield in the Ichawaynochaway watershed since 1948. These estimates were validated using historic climate and streamflow records that show significant reductions in water yield starting in 1981.
- The Soil Water Assessment Tool (SWAT) was parameterized and calibrated for Ichawaynochaway Creek. Preliminary simulations show small increases (<20%) in monthly stream runoff from increases in forest cover and changes</li>

in forest type, with the greatest changes from longleaf pine restoration. This model will also be used in a collaborative partnership with GA TNC to explore irrigation efficiency efforts and landscape factors influencing streamflow.

- We participated in technical advisement for the NOAA Drought Early Warning System being implemented in the ACF River basin. We also participated, as external advisors, in strategic planning efforts for the USGS Southeastern Climate Science Center in Raleigh, North Carolina.
- 4 Journal articles, 1 outreach publication, 3 proposals submitted (1 funded, 1 pending), 13 meeting presentations.
- 5) Geographically Isolated Wetlands in the Coastal Plain Landscape Investigators: Kay Kirkman, Lora Smith, Steve Golladay and Steven Brantley Lead Research Technicians: Lisa Giencke, Jennifer Howze, Chelsea Smith, and Stribling Stuber

This study is designed to enhance the understanding of wetland functions and services that could provide future policy guidance relative to wetland conservation issues (at federal and state levels). This study integrates investigations of the functional role of wetlands in the region, specifically with the goals to: 1) provide new information related to linkages of isolated wetlands to the regional watershed and jurisdictional waters; 2) relate wetland ecosystem services to human health and well-being; and 3) determine the relationship between wetland condition and ecosystem services using Ichauway wetlands as reference conditions for evaluating functions and services of wetlands across a gradient of wetland alteration in the region. Long term monitoring of wetland water levels, water quality, and biota (plants, invertebrates including mosquitoes, fish, amphibians, birds) at reference wetlands is ongoing. Key activities include:

- Supporting 3 graduate students on the project and publishing 5 papers.
- Submitted 2 external proposals:
  - a. Scaling, Heterogeneity and the Emergence of Wetland Landscape Functions; NSF Macrosystem Biology Proposal: Collaborative Research: MSB-FRA: (Smith, Golladay, & Brantley, with UF, USF, VT, NC State)
  - b. Amphibians as Indicators of Landscape Connectivity; Pre-proposal to SERDP. (Smith, with UA, UGA, Nokuse Plantation, Eglin AFB)
- The project was highlighted with 4 university class visits, and 3 resource professional groups.
- Co-organizers Special Session "Wetlands in Agriculture-Dominated Landscapes." Georgia Water Resources Conference 2017.

6) The Ecological Role of Mesopredators, the Effects of Mesopredator Control, and Habitat Approaches for Managing Predation

Investigators: Mike Conner, and Lora Smith

**Co-investigator**: Kay Kirkman

Lead Research Technicians: Gail Morris, and Jen Howze

Our research objectives are based on the premise that wildlife populations need food, cover, and space (i.e., habitat) to persist. Food and cover generally occur heterogeneously and in patches with some patches providing more cover than food, other patches more food than cover and some providing little of either. The composition and distribution of patches vary in space and time, providing challenges for both individual animals and populations.

Risk of predation has a very powerful impact on animal behavior; it obviously affects the need for cover but foraging behavior is also significantly impacted. Therefore, predation is one of the most important drivers of animal behaviors such as diet, movements, and activity patterns, all of which influence habitat selection, or more generally space use patterns. In the absence of predation risk, habitat selection would likely be very different for most species. Competition also impacts animal behavior, and intraspecific competition has long been a core component of habitat selection theory. Our research capitalizes on existing infrastructure (predator exclosures, herbivore exclosures, and small animal enclosures) to better understand mechanisms behind animal behaviors (e.g., movement, foraging, habitat selection, etc.) and how those mechanisms affect animal populations. Our goals are straightforward, but in addressing these goals, we hope to advance our ability to manage wildlife populations, communities, and ecosystems in the face of changing environmental conditions. Therefore, we seek to understand how interspecific interactions, such as predation and competition, alter animal behaviors, such as foraging and habitat selection, to ultimately affect their distribution, abundance, and ecosystem impacts. Key Achievements in 2016 include:

- Continued data collection (mammal, snake, and gopher tortoise abundance and demographics; antipredator behavior assessment, small mammal foraging; developed technique to measure antipredator behavior in deer).
- Publications: 8 in print, 4 in press, 5 in review.
- NSF pre-proposals: 3 currently submitted
- Graduate students, 2 M.S. graduated

# **Productivity**

Our research program continues to achieve a high level of publication productivity, both in numbers and quality. However, we will continue to work toward more first authored papers and have completed our synthesis book on longleaf pine restoration and ecology in 2016. Seven staff published or had in press 28 articles in peer-reviewed research journals or book chapters, and four outreach and other publications. The majority of papers are in high-quality journals, to include proceedings of the National Academy of Sciences, Ecology, Journal of Wildlife Management and Plos ONE.

Numerous presentations were given by staff and graduate students at national and regional professional meetings. A total of 22 graduate students from 5 universities were supported by the Center in this past year.

# **External Support and Collaboration**

Our staff has secured external funding from nine agencies for a total of fourteen projects for research and outreach programs that are compatible with organizational objectives. These awards, spanning multiple years, totaled \$1,878,279. The total received in 2016 was \$482,615.

- University of Georgia (3)
- National Science Foundation (2)
- The Nature Conservancy (2)
- U.S. Fish and Wildlife Service (2)
- Florida Fish and Wildlife Conservation Commission (1)
- National Wild Turkey Federation (1)
- R. Howard Dobbs Foundation (1)
- USDA Forest Service (1)
- U.S. Department of Defense (1)

# **Education and Outreach**

#### General

The Jones Center's education and outreach program had a very productive year in 2016. We continue to emphasize a diversity of efforts for our target audiences of practicing natural resource professionals and university students enrolled in dedicated natural resource programs. These audiences represent the best opportunity for implementation and application of Center science now and in the near future. We

target high-leverage activities that make the most of programmatic resources. Over the last few years, the program has put greater emphasis on natural resource professionals, with this group comprising approximately over half of the participants in 2016 Center activities. We continue to balance onsite educational activities, collaborative partnerships throughout the region, and digital and printed media for communication. Highlights on several of these topics are below with details listed in the Appendix.

#### **Onsite Educational Activities**

- Approximately 660 individuals participated in 29 Center events at Ichauway.
- Center staff conducted two week-long university Maymester courses; Wildlife Techniques and Prescribed Fire. We also hosted two other visiting UGA maymesters; Hydrology and Geology of Georgia and Ecological Issues Around Georgia.
- We held two Ecological Forestry Workshops, one with 18 participants from across the southeast and another for the land management staff at the 160,000 acre Ft. Bragg Army installation in NC.
- Center staff hosted a two-day workshop and meeting between the Centers for Disease Control and Prevention (CDC) and the U.S. Forest Service Southern Research Station. The meeting focused on future research on human health impacts of prescribed fire and included a live fire demonstration
- The Center hosted a workshop for USFWS and NRCS staff to refine policies and protocols for the Working Lands for Wildlife grant program focused on gopher tortoise habitat.

# **Regional Collaborative Partnerships**

- Kevin McIntyre completed a three year service on the leadership team of the Longleaf Partnership Council (LPC) as 2016 Past Chair. The LPC is a collaborative group working on implementation of the America's Longleaf Rangewide Conservation Plan for Longleaf Pine.
- Mark Melvin served as permanent vice-chair and as 2016 Chair of the Georgia Prescribed Fire Council.
- Mark Melvin served on the national Wildland Fire Leadership Council.
- Center scientists and staff served on various professional societies, as well as advisory committees for government agencies and NGO conservation groups.
- The Center helped lead offsite conferences such as the GA Prescribed Fire Council meeting, which set a record for attendance in 2016.

# **Printed and Digital Media**

- Brandon Rutledge authored a new publication titled "Coastal Plain Whitetails: the Ichauway Approach". This is a guide to whitetail deer management in the context of restoration and management of longleaf pine ecosystems. Jessica McCorvey completed layout and design of the publication in house.
- The newly designed website has approximately doubled the number of visitors to the Center website.
- We have posted webinars and presentations on YouTube in collaboration with the Southern Fire Exchange and are posting videos to YouTube for our upcoming 2017 UGA prescribed fire course.

# **Conservation and Land Management**

# Stewardship of Ichauway

The Conservation staff at the Jones Center is charged with the long-term stewardship of the natural resources of Ichauway, and also to provide support for the Center's Research and Education programs. Resource management objectives for the Conservation program can broadly be characterized as ecological management and restoration of a functioning pine-grassland system in a landscape that includes embedded wetlands and streams and diverse animal and plant communities. An active prescribed fire program is required to meet these broad objectives. Other management activities include forest management at the stand scale, vegetative conversion and restoration activities, and management of endangered fauna and multiple game species. Although many operational activities do not change a great deal from year to year, a list of notable achievements within the Conservation program in 2016 are included below.

In 2016 a post-doctoral associate position was approved to lead analyses on the multiple long-term monitoring data sets collected by Conservation program personnel. Initial focus for the person taking the position will be on summarizing data from the 15 years' measurements on the long-term forest vegetation plots, and we anticipate that the person will also collaborate with the wildlife research programs to link wildlife population data (from research and monitoring) with information on decadal vegetation changes at multiple spatial scales. We conducted a national search for the position and began interviews in December.

# Significant Achievements in 2016

- A total of 14,073 acres were burned using prescribed fire to meet specific objectives, with 4042 acres (29%) burned during the growing season.
- The red-cockaded woodpecker population continued to increase under our restoration and management program. We now have 32 active clusters with 29 potential breeding groups (1 short of the goal of 30); 48 chicks were banded during the 2016 spring breeding season. Our current RCW population is approximately 100 birds.
- Multiple publications were developed and published in 2016 using monitoring data on Ichauway's white-tail deer population. These include 3 refereed journal publications and an in-house publication on white-tail deer management for a general audience.
- Discussions were held to revamp the conservation apprentice program.
   The program will incorporate more "high level" experiences into the training, including some interaction with the research labs, while still including the hands-on skills. This shift will likely require recruiting a different type of candidate than was the focus in recent years.
- Searches were begun to fill post-doctoral associate and conservation apprentice positions.
- Operational spraying of herbicides to control invasive, exotic species (primarily Japanese climbing fern) continued at low levels. Previous cogongrass spots (which were treated by Georgia Forestry Commission personnel) were monitored.

# **Budget Summary**

The total budget for Ichauway, Inc. and the Joseph W. Jones Ecological Research Center for 2016 was \$10,267,615 of which \$9,785,000 was the board-approved internally funded budget and \$482,615 was funded from outside grants. The major source of funding for this budget was a grant from the Robert W. Woodruff Foundation.

All divisions of Ichauway operated within budget in 2016. Expenses for Research and support activities were \$3,690,137. Conservation and Land Management expenses were \$2,197,787. The expenses for Education and Outreach activities were \$550,345. Expenses for Administration, Maintenance and Operations were \$2,916,991, which also included overall Center operating expenses such as taxes, electric power and insurance costs.

# **APPENDIX**

# DIRECTOR'S 2016 ANNUAL REPORT to the TRUSTEES OF ICHAUWAY, INC.



#### photo by Richard T. Bryant

I	Publications, Presentations and Grants	pp.	15-25
II	Education and Outreach Activities	pp.	26-30
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VII	Collaborating Organizations	p.	40

# **Publications, Presentations and Grants**

#### "In Press" Publications for 2016

Atkinson, C. L., **S. W. Golladay**, and **L. L. Smith**. Diet of larval anurans across multiple isolated wetlands in the southeastern United States. Southeastern Naturalist.

**Brantley, S. T.**, A. E. Mayfield, III, R. M Jetton, C. F. Miniat, D. R. Zietlow, C. L. Brown, and J. R. Rhea. Elevated light levels reduce hemlock woolly adelgrid infestation and improve carbon balance of infested eastern hemlock seedlings. Forest Ecology and Management.

Chitwood, M. C., M. A. Lashley, J. C. Kilgo, **M. J. Cherry**, **L. M. Conner**, M. Vukovich, H. S. Ray, C. Ruth, R. J. Warren, C. S. DePerno, and C. E. Moorman. Are camera surveys useful for assessing recruitment in white-tailed deer? Wildlife Biology. doi 10.2981/wlb.00178.

Darracq, A. K., L. L. Smith, D. H. Oi, L. M. Conner, and R. A. McCleery. Invasive ants influence native lizard populations. Ecosphere 8(1):e01657. 10.1002/ecs2.1657.

Kirby, R. B., L. I. Muller, M. J. Chamberlain, and **L. M. Conner**. Hardwood management and restoration of longleaf pine ecosystems may affect raccoon daytime resting sites. Restoration Ecology.

Wiggers, M. S., J. K. Hiers, A. Barnett, R. S. Boyd, and **L. K. Kirkman**. Seed heat tolerance and germination of six legume species native to a fire-prone longleaf pine forest. Plant Ecology. doi 10.1007/s11258-016-674-x.

Zinnert, J. C., J. A. Stallins, **S. T. Brantley**, and D. R. Young. Crossing scales: the complexity of barrier-island processes for predicting future change. Bioscience doi: 10.1093/biosci/biw154.

#### **Published Refereed Journal Articles and Books**

**Brantley, S. T.**, M. L. Schulte, P. V. Bolstad, and C. F. Miniat. 2016. Equations for estimating biomass, foliage area, and sapwood of small trees in the southern Appalachians. Forest Science 62:414-421.

Caldwell, P. V., C. F. Miniat, K. J. Elliott, W. T. Swank, **S. T. Brantley**, and S. H. Laseter. 2016. Declining water yield from forested mountain watersheds in response to climate change and forest mesophication. Global Change Biology 22:2997-3012.

- Cherry, M. J., K. E. Morgan, B. T. Rutledge, L. M. Conner, and R. J. Warren. 2016. Can coyote predation risk induce reproduction suppression in white-tailed deer? Ecosphere 7(10):e01481. 10.1002/ecs2.1481.
- Cherry, M. J., K. L. Turner, M. B. Howze, B. S. Cohen, L. M. Conner, and R. J. Warren. 2016. Coyote diets in a longleaf pine ecosystem. Wildlife Biology 22:64-70
- **Cherry, M. J.**, R. J. Warren, and **L. M. Conner**. 2016. Fear, fire, and behaviorally mediated trophic cascades in a frequently burned savanna. Forest Ecology and Management 368:133-139.
- Cohen, B. S., E. H. Leone, E. P. Garrison, C. R. Morea, S. M. Shea, K. V. Miller, M. J. Cherry, J. H. Stickles, and J. D. Kelly. 2016. Evaluation of antler-based selective harvest criteria on harvest and antler size of male white-tailed deer in Florida. Journal of the Southeastern Association of Fish and Wildlife Agencies 3:203-209.
- Cohen, M. J., I. Creed, L. Alexander, N. Basu, A. J. K. Calhoun, C. Craft, E. D'Amico, E. DeKeyser, L. Fowler, H. E. Golden, J. W. Jawitz, P. Kalla, L. K. Kirkman, C. R. Lane, M. Lang, S. G. Leibowitz, D. B. Lewis, J. Marton, D. L. McLaughlin, D. Mushet, H. Raanan-Kiperwas, M. C. Rains, L. L. Smith, and S. C. Walls. 2016. Do geographically isolated wetlands influence landscape functions? Proceedings of the National Academy of Sciences of the United States of America 113:1978-1986.
- Conner, L. M., M. J. Cherry, B. T. Rutledge, C. H. Killmaster, G. Morris, and L. L. Smith. 2016. Predator exclusion as a management option for increasing white-tailed deer recruitment. Journal of Wildlife Management 80:162-170.
- Darracq, A. K., **L. M. Conner**, J. S. Brown, and R. A. McCleery. 2016. Cotton rats alter foraging in response to an invasive ant. PLoS ONE 11(9):e0163220. doi:10.1371/journal.pone.0163220.
- **Dziadzio, M. C.**, R. D. Chandler, **L. L. Smith**, and S. B. Castleberry. 2016. Impacts of red imported fire ants (Solenopsis invicta) on nestling and hatchling gopher tortoises (*Gopherus polyphemus*) in southwest Georgia, USA. Herpetological Conservation & Biology 11:527-538.
- **Dziadzio, M. C.**, A. K. Long, **L. L. Smith**, R. D. Chandler, and S. B. Castleberry. 2016. Presence of the red imported fire ant at gopher tortoise nests. Wildlife Society Bulletin 40:202-206.
- **Dziadzio, M. C.**, and L. L. Smith. 2016. Vertebrate use of gopher tortoise burrows and aprons. Southeastern Naturalist 15:586-594.

- **Dziadzio, M. C., L. L. Smith**, R. B. Chandler, and S. B. Castleberry. 2016. Effect of nest location on gopher tortoise survival. Journal of Wildlife Management 80:1314-1322.
- **Golladay, S. W.**, K. L. Martin, J. M. Vose, D. N. Wear, A. P. Covich, R. J. Hobbs, K. D. Klepzig, G. E. Likens, R. J. Naiman, and A. W. Shearer. 2016. Achievable future conditions as a framework for guiding forest conservation and management. Forest Ecology and Management 360:80-96.
- Hendricks, J. J., **R. J. Mitchell**, K. A. Kuehn, S. D. Pecot. 2016. Ectomycorrhizal fungal mycelia turnover in a longleaf pine forest. New Phytologist 209:1693-1704.
- King, R. A., B. P. Hepler, **L. L. Smith**, and J. B. Jensen. 2016. The status of *Macrochelys temminckii* (Alligator snapping turtle) in the Flint River, GA, 22 years after the close of commercial harvest. Southeastern Naturalist 15:575-585.
- Kirby, R. B., **M. J. Cherry**, L. I. Muller, R. J. Warren, M. J. Chamberlain, and **L. M. Conner**. 2016. Indirect predation management in a longleaf pine ecosystem: hardwood removal and the spatial ecology of raccoons. Forest Ecology and Management 381:327-334.
- **Kirkman, L. K., L. M. Giencke, R. S. Taylor, L. R. Boring**, C. L. Staudhammer, and **R. J. Mitchell**. 2016. Productivity and species richness in longleaf pine woodlands: resource-disturbance influences across an edaphic gradient. Ecology 97:2259-2271.
- **Little, A. R.**, J. F. Benson, M. J. Chamberlain, **L. M. Conner**, and R. J. Warren. 2016. Survival and cause-specific mortality of female eastern wild turkeys in two frequently-burned longleaf pine savannas. Wildlife Biology 22:238-245.
- **Little, A. R.**, M. J. Chamberlain, **L. M. Conner**, and R. J. Warren. 2016. Habitat selection of wild turkeys in burned longleaf pine savannas. Journal of Wildlife Management 80:1280-1289.
- **Little, A. R.**, N. P. Nibbelink, M. J. Chamberlain, **L. M. Conner**, and R. J. Warren. 2016. Eastern wild turkey nest site selection in two frequently burned pine savannas. Ecological Processes 5:1-10.
- Loudermilk, E. L., J. K. Hiers, S. Pokswinski, J. J. O'Brien, A. Barnett, and **R. J. Mitchell**. 2016. The path back: oaks (*Quercus spp.*) facilitate longleaf pine (*Pinus palustris*) seedling establishment in xeric sites. Ecosphere 7(6):e01361.10.1002/ecs2.1361.
- **Morris, G.**, and **L. M. Conner**. 2016. Effects of forest management practices, weather, and indices of nest predator abundance on nest predation: a 12-year artificial nest study. Forest Ecology and Management 366:23-31.

- Rugel, K., **S. W. Golladay**, C. R. Jackson, and T. C. Rasmussen. 2016. Delineating groundwater/surface water interaction in a karst watershed: Lower Flint River Basin, southwestern Georgia, USA. Journal of Hydrology: Regional Studies 5:1-19.
- **Shivers, S. P.**, S. P. Opsahl, and A. P. Covich. 2016. Microbial bioavailability of dissolved organic carbon from leachates of freshwater autotrophs. Aquatic Microbial Ecology 76:233-241.
- Silva, C. A., A. T. Hudak, L. A. Vierling, E. L. Loudermilk, J. J. O'Brien, J. K. Hiers, **S. B. Jack**, C. A. Gonzalez-Benecke, H. Lee, M. J. Falkowski, and A. Khosravipour. 2016. Imputation of individual longleaf pine (*Pinus palustris Mill.*) tree attributes from field and LiDAR data. Canadian Journal of Remote Sensing 42:554-573.
- Starr, G., C. L. Staudhammer, **S. Wiesner**, S. Kunwor, H. W. Loescher, **A. F. Baron**, **A. Whelan**, **R. J. Mitchell**, and **L. R. Boring**. 2016. Carbon dynamics of *Pinus palustris* ecosystems following drought. Forests 7:98.
- **Stuber, O. S., L. K. Kirkman**, J. Hepinstall-Cymerman, and G. I. Martin. 2016. The ecological condition of geographically isolated wetlands in the southeastern United States: the relationship between landscape level assessments and macrophyte assemblages. Ecological Indicators 62:191-200.

# **Proceedings, Outreach and Other Publications**

- Block, W. M., **L. M. Conner**, P. A. Brewer, P. Ford, J. Haufler, A. Litt, R. E. Masters, L. R. Mitchell, and J. Park. 2016. Effects of prescribed fire on wildlife and wildlife habitats in selected ecosystems of North America. The Wildlife Society Technical Review 16-01. The Wildlife Society, Bethesda, Maryland, USA. 69 pp.
- Brooks, J. R., and **S. B. Jack**. 2016. An updated whole stand growth and yield system for planted longleaf pine in southwest Georgia. Pages 258-263 in C. J. Schweitzer, W. K. Clatterbuck, and C. M. Oswalt (eds.). Proceedings of the 18th Biennial Southern Silvicultural Research Conference. General Technical Report SRS-212. USDA, Forest Service, Southern Research Station, Asheville, North Carolina.
- **Cherry, M. J.** 2016. The Predator Paradox: Ending the war with wolves, bears, cougars, and coyotes. (Book review). Journal of Wildlife Management 80:581-582.
- Zinnert, J. C., **S. T. Brantley**, and D. R. Young. 2016. Bistability and the future of barrier islands. Nature Climate Change 6:5-6.

# **Meeting Presentations, Posters and Abstracts**

- **Belovitch, M.**, D. Aubrey, and **S. T. Brantley**. Hydraulic redistribution within the xeric longleaf pine savanna of southern Georgia. Warnell Graduate Symposium, Warnell School of Forestry, Athens Georgia. Poster presentation.
- **Bigelow, S. W.**, **A. Whelen**, and **S. B. Jack**. Does retaining longleafs in group selection openings increase hardwood topkill? Longleaf Alliance Conference, Savannah, Georgia. Poster presentation.
- **Biggerstaff, M. B., M. J. Cherry, L. M. Conner**, R. B. Chandler, C. H. Killmaster, **J. T. Johnson**, and K. V. Miller. Using passive cameras to monitor deer activity during the breeding season. 40th Annual Meeting of the Southeast Deer Study Group, St. Louis, Missouri. 2nd Place Poster Presentation.
- **Biggerstaff, M. B., M. J. Cherry, L. M. Conner**, R. B. Chandler, C. H. Killmaster, **J. T. Johnson**, and K. V. Miller. Using passive cameras to monitor deer activity during the breeding season. Warnell Graduate Student Symposium. Athens, Georgia. Poster presentation.
- **Brantley S. T.**, A. E. Mayfield, R. M. Jetton, C.F. Miniat, D. R. Zietlow, C. Brown, and R. Rhea. Elevated light levels reduce HWA infestation and improve carbon balance in eastern hemlock seedlings. North American Forest Insect Work Conference, Washington, D.C. Poster presentation.
- **Brantley S. T.**, C. F. Miniat, **P. V. McCormick**, P. V. Caldwell, and P. Bolstad. Can longleaf pine restoration help mitigate water scarcity in the southeastern U.S.? Ecological Society of America Annual Meeting, Fort Lauderdale, Florida. Poster presentation.
- **Brantley S. T.**, E. Rea, C. F. Miniat, **P. V. McCormick**, P. V. Caldwell, **O. S. Stuber**, **S. W. Golladay**, and P. V. Bolstad. Longleaf pine restoration as a tool for improving water yield in the southeastern U.S. Annual symposium of the Southeastern Chapter of the Society for Ecological Restoration, Quincy, Florida. Oral presentation.
- **Conner, L. M.**, **L. L. Smith**, and E. Schlimm. Using wildlife habitat models to evaluate management endpoints for open pine woodland and savanna. The Wildlife Society, Annual Conference, Raleigh, North Carolina.
- **Conner, L. M.** The importance of space, time, and predator diversity when implementing predator control. Bull Pen Hunting Club, Mobile, Alabama. Invited oral presentation.
- **Conner, L. M.** Update on activities of Parent Chapter, The Wildlife Society, Georgia Chapter of The Wildlife Society, Tifton Georgia. Oral presentation.

- **Conner, L. M.**, **L. L. Smith**, and E. Schlimm. Using wildlife habitat models to evaluate management endpoints for open pine woodland and savanna. Gulf Coastal Plains & Ozarks (GCPO) Research Coordination meeting. Oral presentation.
- **Conner, L. M.**, **L. L. Smith**, and E. Schlimm. Using wildlife habitat models to evaluate management endpoints for open pine woodland and savanna. GCPO Webinar. 105 Attendees.
- **Conner, L. M.** Update on activities of Parent Chapter, 2016. The Wildlife Society, Tennessee Chapter of The Wildlife Society, Montgomery Belle State Park, Tennessee. Oral presentation.
- **Conner, L. M.** Update on activities of Parent Chapter, 2016. The Wildlife Society, Florida Chapter of The Wildlife Society, Gainesville, Florida. Oral presentation.
- **Davis, J. L.**, M. C. Freeman, **S. W. Golladay**. Stream drying and fish metapopulation dynamics in the Ichawaynochaway Creek Basin, Southwest Georgia. Society for Freshwater Science Annual Conference, Raleigh, North Carolina. Poster presentation.
- Denham, S. O., A. C. Oishi, C. F. Miniat, **S. T. Brantley**, and K.A. Novick. Tree water use dynamics across different sites and age classes in the southern Appalachians. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida. Poster presentation.
- **Golladay, S. W.** Exploring flow guidelines for a free-flowing river in a human dominated landscape: The Flint River Georgia. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida. Invited paper presentation.
- **Howze, J. M.**, **L. L. Smith**, and K. Sash. Habitat selection in the gray ratsnake: tradeoffs in man-agement for maintenance of the longleaf pine ecosystem. The Wildlife Society Annual Meeting, Raleigh, North Carolina. Poster presentation.
- **Howze, J. M.**, **L. L. Smith**, and K. Sash. Habitat selection in the gray ratsnake: tradeoffs in man-agement for maintenance of the longleaf pine ecosystem. The Wildlife Society Georgia Chapter Meeting, Tifton, Georgia. Poster presentation.
- Jack, S. B., M. F. Nieminen, R. K. McIntyre, and S. W. Bigelow. Managing multi-aged longleaf pine forests: Overstory and regeneration responses to harvest treatments. Society of American Foresters Annual Convention, Madison, Wisconsin. Oral presentation.
- **Johnson, J. T.**, **L. M. Conner**, R. Chandler, and K. Miller. Using infrared cameras to estimate population parameters and behavioral patterns of white-tailed deer. Deer Management Research Group Meeting, Palmetto, Georgia. Oral presentation.

- **Johnson, J. T., L. M. Conner, M. J. Cherry**, R. Chandler, and K. Miller. Using infrared cameras to estimate White-tailed deer population parameters and behavioral patterns. Celebrate Graduate Education, in Support of the Land Grant Mission, Tifton, Georgia. Poster presentation.
- **Johnson, J. T.**, R. Chandler, **L. M. Conner**, **M. J. Cherry**, K. Miller. Spatial and Temporal Variation in Deer Social Dispersion Influences Camera Survey Estimates. Southeast Deer Study Group Annual Meeting, Charlotte, North Carolina. Oral presentation.
- Lapham, M., C. F. Miniat, A. Mayfield, R. Jetton, D. Zietlow, **S. T. Brantley**, and R. Rhea. Shade and infestation affect eastern hemlock nutrient content. North Carolina Hemlock Wooly Adelgid (HWA) Biological Control Forum, Montreat, North Carolina. Poster presentation.
- Lapham, M., C. F. Miniat, A. Mayfield, R. Jetton, D. Zietlow, **S. T. Brantley**, and R. Rhea. Shade and hemlock woolly adelgid (HWA) infestation affect eastern hemlock (*Tsuga canadensis*) nutrient content. 25th Southern Appalachian Forest Entomology/Pathology Seminar, Crossnore, North Carolina. Oral presentation.
- Lapham, M., C. F. Miniat, A. E. Mayfield, R. Jetton, D. R. Zietlow, **S. T. Brantley**, and R. Rhea. Shade and infestation affect eastern hemlock nutrient content. North American Forest Insect Work Conference, Washington, D.C. Poster presentation.
- **McIntyre, R. K.** An economic perspective on managing longleaf and other open pine systems for wildlife. The Wildlife Society 2016 Annual Conference, Raleigh, North Carolina. Invited Oral presentation.
- **McIntyre, R. K.** Longleaf restoration and Rx fire A regional perspective. FL TNC S130/S190 Rx Fire Course, Bristol, Florida. Oral presentation.
- **McIntyre, R. K.** Where is longleaf pine? Setting the stage for effective landscape scale conservation planning through resource mapping. National Fish and Wildlife Service Stewardship Partners Meeting, St. Simons Island, Georgia. Oral presentation.
- **McIntyre**, R. K. Increasing longleaf restoration on private lands. Longleaf Partnership Council Meeting, Savannah, Georgia. Oral presentation.
- **McLeay, S., L. L. Smith**, and C. Atkinson. Quantifying Patterns of Anuran Excretion and Nutrient Limitation in Geographically Isolated Wetlands. Society of Freshwater Science, Sacramento, California. Poster presentation.

- Marzolf, N. D., S. D. Shivers, S. W. Golladay, and A. P. Covich. Potential physicochemical limitation of invasive apple snail dispersal: Applying the novel ecosystem concept in a large southeastern reservoir. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida. Paper presentation.
- **Melvin, M. A.** 2015 Prescribed fire use survey. The Wildlife Society 2016 Annual Conference, Raleigh, North Carolina. Invited Oral Presentation.
- **Melvin, M. A.** Challenges and use of prescribed fire in the region. Southeast Regional Partnership for Planning and Sustainability Principles Meeting, Ft. Benning, Georgia. Invited Oral presentation.
- Miniat, C. F., K. J. Elliott, T. Cofer, P. Clinton, **S. T. Brantley**, D. Zietlow, R. Jetton, M. Lapham, A. Mayfield, R. Rhea, P. V. Bolstad, W. T. Swank, and J. M. Vose. Hemlock Research at Coweeta. North Carolina Hemlock Woolly Adelgid (HWA) Biological Control Forum, Montreat, North Carolina. Invited Oral presentation.
- Miniat, C. F., **S. T. Brantley**, D. R. Zeitlow, A. E. Mayfield, R. Rhea, R. Jetton, and P. Arnold. Physiological responses of eastern hemlock to biological & silvicultural release: Implications for restoration. North American Forest Insect Work Conference, Washington, D.C. Poster presentation.
- Miniat, C. F., K. J. Elliott, T. Cofer, P. Clinton, **S. T. Brantley**, M. Lapham, J. Scott, D. Zietlow, R. Jetton, A. Mayfield, R. Rhea, P. V. Bolstad, W. T. Swank, and J. M. Vose. Hemlock research at Coweeta. 2nd Annual Hemlock Woolly Adelgid (HWA) Program Managers Meeting, Cornell University, Ithaca, New York. Invited Oral presentation.
- **Nieminen, M. F.**, and **S. B. Jack**. A fire legacy on longleaf pine regeneration. Longleaf Alliance Conference, Savannah, Georgia. Poster presentation.
- **Pynne, J. T.**, J. Austen, S. Castleberry, **L. M. Conner**, S. Duncan, B. Gitzen, R. McCleery, E. Parsons. Using an ecosystem engineer to restore functionality of natural pinelands in the southeastern United States. The Wildlife Society National Meeting, Raleigh, North Carolina. Poster presentation.
- **Rea, E., S. T. Brantley**, and **P. V. McCormick**. Using land management to mitigate water scarcity in the southeastern US: a case study using the SWAT model. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida. Poster presentation.
- **Ritger, H. M.**, J. J. O'Brien, **L. Boring**, **S. T. Brantley**, and K. Gandhi. Interactions between subcortical insects and longleaf pine physiology under various prescribed fire regimes. North American Forest Insect Work Conference, Washington, D.C. Poster presentation.

- **Shivers, S. D., N. S. Marzolf**, A. P. Covich, and **S. W. Golladay**. Hydrologic drivers of submerged aquatic vegetation coverage alter nutrient retention: Applying the novel ecosystem concept to a large southeastern reservoir. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida. Poster presentation.
- **Smith, C. R.**, and **S. W. Golladay**. Water quality changes in the face of increased variability: How floods and droughts affect not only the quantity but quality of water. 5th University of Florida Water Institute Symposium, Gainesville, Florida. Poster presentation.
- **Smith, C. R.**, **P. V. McCormick**, A. P. Covich, and **S. W. Golladay**. Macroinvertebrate recolonization dynamics within an intermittent stream following severe drought: Indicators of future regional stream conditions. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida. Paper presentation.
- **Stuber, O. S.**, and **S. T. Brantley**. Fire exclusion increases canopy interception loss in longleaf pine (*Pinus palustris*) savannas. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida. Poster presentation.
- **Stuber, O. S., S. T. Brantley, E. Rea**, C. F. Miniat, **P. V. McCormick**, P. V. Caldwell, **S. W. Golladay**, and P. V. Bolstad. Can longleaf pine restoration help mitigate water scarcity in the southeastern U.S.? 11th Biennial Longleaf Conference, Savannah, Georgia. Poster presentation.
- **Smith, L. L., L. M. Conner**, and E. M. Schlimm. Using wildlife habitat models to evaluate man-agement endpoints for open longleaf pine woodland and savanna. Open Canopy Pine Symposium. The Wildlife Society Annual Meeting, Raleigh, North Carolina. Invited Oral presentation.
- **Smith, L. L., L. M. Conner**, and E. M. Schlimm. Using wildlife habitat models to evaluate management endpoints for open longleaf pine woodland and savanna. The Wildlife Society Georgia Chapter Meeting, Tifton, Georgia. Oral presentation.
- Van der Heiden, C., and **J. T. Johnson**. Vegetation communities shift in response to climate change: National Key Deer Refuge 1990-2013. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida. Oral presentation.
- Zietlow, D. Zietlow, **S. T. Brantley**, C. F. Miniat, A. Mayfield, R. Jetton, and R. Rhea. Silvicultural treatments to preserve and restore Eastern Hemlock. North Carolina Hemlock Woolly Adelgid (HWA) Biological Control Forum, Montreat, North Carolina. Invited poster presentation.

#### **Professional Seminars, Guest Lectures and Special Presentations**

- **Kirkman, L. K.** Restoration and conservation management of the longleaf pine ecosystem: understanding pieces of the puzzle. Department of Conservation and Wildlife, University of Florida, Gainesville, Florida. Invited seminar.
- **Melvin, M. A.** Prescribed fire: Past, present, and future. Prescribed Fire Summit and Changing Fire Regimes, Manhattan, Kansas. Keynote speaker.
- **Smith, L. L.** Southeastern Ecology and Evolution Conference, Career panel, Florida State University, Tallahassee, Florida. Invited Oral presentation.

#### **Externally Funded Projects**

- **Boring, L. R.**, J. F. Franklin, and **R. J. Mitchell**. Building forest management into Earth system modeling: scaling from stand to continent. The National Science Foundation. June 01, 2013 May 31, 2017. \$170,872. Received in 2016, \$50,713.
- **Boring, L. R.**, and G. Starr. Long-term ecosystem inventories: Assessing availability and scalability of C and N data for ecosystem models to inform scope of future proposals. USDA Forest Service. July 02, 2014 September 30, 2016. \$125,000. Received in 2016, \$50,205.
- **Brantley, S. T.**, and **S. W. Golladay**. Soil and water assessment tool modeling. The Nature Conservancy. December 07, 2016 December 31, 2017. \$38,000. No funds received in 2016.
- **Conner, L. M.** Breeding bird response to longleaf pine restoration. National Wild Turkey Federation. February 22, 2011 December 31, 2016. \$35,700. Received in 2016, \$4,990.
- **Conner, L. M.**, and K. Miller. Gray fox spatial movement tracking. U.S. Department of Defense. September 25, 2013 September 24, 2016. \$86,813. Received in 2016, \$17,101.
- **Conner, L. M.**, and **L. L. Smith**. Using wildlife habitat models to evaluate management endpoints for open pine woodland and savanna. U.S. Fish and Wildlife Service. March 15, 2014 July 01, 2016. \$132,104. Received in 2016, \$6,906.
- **Conner, L. M.**, and K. Miller. Development and evaluation of an unbaited camera survey technique for estimating relative abundance and demographic parameters of white-tailed deer. U.S. Fish and Wildlife Service, subcontracted through University of Georgia. July 01, 2014 September 30, 2018. \$145,140. Received in 2016, \$55,054.

- **Conner, L. M.**, **M. J. Cherry**, R. Chandler, and K. Miller. Effects of hydrology, hunting, and predation on white-tailed deer dynamics in south Florida. Florida Fish and Wildlife Conservation Commission, subcontracted through University of Georgia. September 29, 2014 December 31, 2018. \$249,449. Received in 2016, \$66,184.
- **Conner, L. M.**, and M. Chamberlin. Movement ecology of female wild turkeys during nesting and brooding seasons on Silver Lake Wildlife Management Area. Georgia Department of Natural Resources, subcontracted through University of Georgia. August 01, 2014 July 31, 2017. \$153,400. Received in 2016, \$9,561.
- **Conner, L. M.**, and R. A. McCleery. Collaborative research: EAGER-NEON: NEON sites as a platform for transformative wildlife research. National Science Foundation. October 01, 2015 September 30, 2017. \$167,148. Received in 2016, \$101,407.
- **Conner, L. M.**, and R. A. McCleery. Using an ecosystem engineer to restore functionality of natural pinelands in the southeastern United States. U.S. Fish and Wildlife Service. January 01, 2016 September 30, 2018. \$187,153. Received in 2016, \$56,897.
- **Kirkman, L. K.** Evaluation of longleaf pine undercover ecotype seed sources. R. Howard Dobbs, Jr. Foundation. November 02, 2012 December 31, 2016. \$65,000. Received in 2016, \$24,927.
- **McIntyre, R. K.**, and **S. B. Jack**. Collaborative management and restoration of longleaf pine in lowcountry South Carolina. The Nature Conservancy. December 01, 2014 February 01, 2017. \$22,500. Received in 2016, \$12,663.
- **Smith, L. L.** Gopher tortoise surveys and population evaluation. Florida Fish and Wildlife Conservation Commission. January 30, 2014 June 30, 2016. \$300,000. Received in 2016, \$26,007.

# Education and Outreach Program On-site Activities

### **University Class Visits**

University of Georgia. A week-long Maymester short course in fire ecology. (16)

University of Florida. A two-day field experience focusing on longleaf pine silviculture, management and restoration. (27)

University of the South. A two-day field tour including an overview of the longleaf pine ecosystem, longleaf pine management and restoration and endangered species. (18)

Berry College. A three-day field experience including an overview of the longleaf pine ecosystem, rare and endangered species, wetland and plant diversity, fire management at Ichauway and various restoration and research projects. (23)

Abraham Baldwin Agricultural College. A one-day field tour focusing on fire ecology and longleaf pine management and ecology. (33)

University of Georgia. A one-day field experience focusing on hydrology and geology of the Dougherty plain and associated aquatic systems. (16)

University of Georgia. A one-day field experience focusing on environmental issues around Georgia. (20)

University of Georgia. A week-long Maymester short course in wildlife ecology and wildlife research techniques. (10)

Albany State University. A one-day visit to expose students to diverse career options in the sciences. (20)

Arkansas Tech University. A two-day field tour focusing on longleaf pine forest ecology. (18)

University of Georgia. A two-day field experience focusing on mammalogy. (14)

## **Natural Resource Professionals and Conservation Groups**

National Prescribed Fire Training Center. A one-day field tour focusing on an introduction to longleaf pine ecosystems and prescribed fire in the southeastern U.S. (36)

Centers for Disease Control and US Forest Service Southern Research Station. A two-day meeting to educate CDC about the role of prescribed fire in maintaining forest health and wildlife habitat and to explore opportunities for collaborative research on human health and prescribed fire. (8)

Jim and Lynda Fenton. A two day visit with the new owners of Jeffords Woods, one of the premier longleaf natural areas remaining in south Georgia to educate them about longleaf pine ecology and management. (4)

Working Lands for Wildlife Workshop. A 4-day workshop with representatives from Natural Resource Conservation Service and the U.S. Fish and Wildlife Service to refine conservation practices and grant program policy and priorities for the Working Lands for Wildlife Program, focusing on gopher tortoise conservation. (27)

National Prescribed Fire Training Center. A one-day field tour focusing on an introduction to longleaf pine ecosystems and prescribed fire in the southeastern U.S. (17)

Gopher Tortoise Council. A two-day business meeting and field tour. (28)

Institute for Georgia Environmental Leadership (IGEL). A one-day field tour focusing on longleaf pine ecology, prescribed fire and water resources issues. (35)

Georgia Association of Conservation Districts. A one-day meeting hosted by The Flint River Soil and Water Conservation District. (50)

Freshwater Mussel Workshop. A four-day training workshop focusing on field survey techniques and identification of freshwater mussels. (12)

Clarendon Farms. A one-day visit focusing on the forestry and wildlife management of Ichauway. (3)

Society of American Foresters. A one-day meeting from the Flint River Chapter. (21)

Adopt-A-Stream Board. A three-day meeting and field tour. (8)

Georgia Prescribed Fire Council (GPFC). A two-day visit with speakers for the Annual GPFC Meeting. (5)

Ecological Forestry Workshop. A three-day open-enrollment workshop focused on long-leaf pine ecology, restoration and management, with a specific focus on application of the Stoddard-Neel system of forest management. (18)

Ecological Forestry Workshop. A three-day workshop with the land management staff from Fort Bragg focusing on application of the Stoddard-Neel system of forest management as well as addressing challenges specific to their agency. (14)

#### **Public Relations**

Creeks to Coast Educator Workshop. A one-day field tour part of a larger program to expose educators to research and water resources in the Apalachicola Chattahoochee Flint Basin. (20)

Georgia River Network Fall Float on the Flint. A paddle event which included a stop at Ichauway, where Center staff gave overviews of the longleaf pine ecosystem and aquatic system. (120)

# Education and Outreach Program Off-site Activities

## **Regional Partnerships and Advisement**

#### **Longleaf Partnership Council**

The Center was a founding member of this regional partnership of federal, state, non-governmental organization, and private groups working to implement the 2009 Range-wide Conservation Plan for Longleaf Pine, which seeks to double the acreage of long-leaf from 4 to 8 million acres by 2025. **Kevin McIntyre** has worked with this effort since it began in 2007 and served as Chair of the Council for 2014-2015, and served as Past Chair in 2016. He serves on several subcommittees of the Council and also represented the Council on the Federal Coordinating Committee for Longleaf Pine.

#### **Lowcountry Forest Conservation Partnership**

**Kevin McIntyre** and **Steve Jack** were funded through a grant from The Nature Conservancy (TNC) to provide advice and develop longleaf restoration plans for approximately 2000 acres owned by TNC, as well as other private lands, around the Francis Marion National Forest. This effort has evolved into a regional longleaf partnership that serves as a local implementation team for the Range-wide Conservation Plan for Longleaf Pine.

#### **Longleaf Stewardship Fund Grant Review Panel**

**Kevin McIntyre** served on a panel to review grant proposals to the Longleaf Stewardship Fund, a public/private grant program that awarded \$4.3 million dollars in 2016 to support longleaf pine restoration across the Southeast.

#### Apalachicola Regional Stewardship Alliance (ARSA)

**Kevin McIntyre** is member of the ARSA, a regional partnership for longleaf restoration in a million-acre focus area centered around the Apalachicola National Forest and St. Marks National Wildlife Refuge, extending into nearby Southwest Georgia. This group serves as a local implementation team for the Range-wide Conservation Plan for Longleaf Pine.

#### Chattahoochee Fall Line Conservation Partnership (CFLCP)

**Steve Jack** served as a member of the steering committee for the CFLCP, a regional partnership for longleaf restoration around the Ft. Benning/Fall Line Sandhills area of western Georgia. This group serves as a local implementation team for the Range-wide Conservation Plan for Longleaf Pine.

#### **Coalition of Prescribed Fire Councils**

**Mark Melvin** served on the board of this national organization, whose overarching goal is to create one voice to assist fire practitioners, policymakers, regulators, and citizens with issues surrounding prescribed fire use.

#### **Georgia Prescribed Fire Council (GPFC)**

The GPFC is a diverse group of stakeholders collaborating to protect the right, to encourage the use of, and to promote public understanding of prescribed fire in Georgia. **Mark Melvin** serves as permanent Vice-Chair for this group and coordinates the annual meeting. Mark served his second term as Chair in 2016.

#### Southern Fire Exchange (SFE)

The SFE is a regional program for fi re science delivery in the Southeast, funded by the Joint Fire Science Program. The SFE consolidates southern fire information and provides new ways for the fire community to interact and learn from one another. **Mark Melvin** serves on the Advisory Board.

#### National Wildfire Coordination Group (NWCG)

The Fire Use Subcommittee reviews and updates NWCG prescribed fire training standards and policy. **Mark Melvin** serves as liaison on the Fire Use Subcommittee.

#### **National Wildfire Coordinating Group (NWCG) Smoke Committee**

The revision of NWCG's Smoke Management Guide encompasses broad training and standards, as well as policy, related to managing smoke from wildland fires. **Mark Melvin** serves as a member of the Smoke Management Guide Review Team.

#### Wildland Fire Cohesive Strategy: Southeast Regional Committee

This group provides executive leadership, oversight, and guidance within their respective region for completing the tasks assigned by the Wildland Fire Executive Council during Phases II and III of the Cohesive Strategy. **Mark Melvin** serves as Southeast Regional Committee Member.

#### Southeast Regional Partnership for Planning and Sustainability (SERPPAS)

SERPPAS is a six-state partnership comprised of state and federal agencies that promotes collaboration in making resource use decisions supporting conservation of natural resources, working lands, and national defense. **Mark Melvin** serves on the Air Quality Subcommittee and Prescribed Fire Work Group, working to develop creative solutions that address smoke management for prescribed fire and increase burning while complying with state air quality regulations.

#### **Georgia Forestry Commission**

The Georgia Forestry Commission hosts and administers a certified burn manager course. These classes are conducted at multiple locations annually, and **Mark Melvin** serves as a class instructor.

#### **Georgia Adopt A Stream**

**Steve Golladay** served on the board of directors for Georgia Adopt A Stream (AAS). Among the priority activities of the group were refining the statewide water quality database, available online. Georgia AAS also started a program of data collection for Paddle Georgia and other river education efforts.

#### Rivers Alive Cleanup

**Lora Smith**, **Jennifer Howze**, and **Kay Kirkman** continue to organize and lead river cleanup days on the Flint River during weekends, largely as volunteer work in Bainbridge, Baker County, and Albany, Georgia. **Steve Golladay** is on the Advisory Board for Keep Bainbridge-Decatur County Beautiful.

#### **Staff**

#### **Scientists-UPDATE**

Lindsay R. Boring - Director, Scientist, Forest Ecology
Adjunct Associate Professor - University of Georgia
Adjunct Professor and Graduate Faculty – University of Alabama
Courtesy Professor - University of Florida

Seth W. Bigelow – Assistant Scientist, Forest Ecology

Steven T. Brantley - Assistant Scientist, Ecohydrology Adjunct Assistant Professor - University of Georgia

L. Michael Conner - Scientist, Wildlife Ecology
Courtesy Assistant Professor - University of Florida
Affiliate Assistant Professor - Auburn University
Adjunct Assistant Professor - University of Georgia
Adjunct Assistant Professor - Mississippi State University
Adjunct Assistant Professor - University of Tennessee

Stephen W. Golladay - Associate Scientist, Aquatic Ecology Adjunct Associate Professor - University of Georgia Adjunct Associate Professor - Valdosta State University

Steven B. Jack - Conservation Ecologist, Applied Forest Scientist Courtesy Associate Professor - University of Florida Affiliate Assistant Professor - Auburn University

L. Katherine Kirkman - Scientist, Plant Ecology Affiliate Professor - Auburn University Adjunct Professor - University of Georgia Courtesy Professor - University of Florida

Lora L. Smith - Scientist, Wildlife Ecology Courtesy Professor - University of Florida Affiliate Professor - Auburn University Adjunct Professor - University of Georgia

\*Michael J. Cherry - Postdoctoral Researcher, Wildlife Ecology

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#### **Research Technicians/Associates**

Brian A. Clayton - Monitoring Technician II, Groundwater Hydrology

Brian Cloninger - Central Analytical Lab Technician

Lisa Giencke - Lead Research Technician II, Plant Ecology

Jennifer L. Howze–Research Associate, Herpetology

Gail Morris - Lead Research Technician II, Wildlife Ecology

Mary Frances Nieminen - Lead Research Technician I, Forest Ecology III

\*Evan Rea - Lead Research Technician I, Aquatic Ecology

Chelsea R. Smith - Lead Research Technician I, Aquatic Ecology

O. Stribling Stuber - Lead Research Technician I, Ecohydrology

R. Scott Taylor – Research Associate, Forest Ecology

Andy W. Whelan – Lead Research Technician I, Forest Ecology

### **Research Support**

Jean C. Brock - Information Technology Manager / Geographic Information Systems

\*Glenn D. Bailey, Jr. - Network Manager

Micheal G. Simmons – Database / Data Analyst

Chandler "Lain" Alexander - IT and Network Support Technician

Elizabeth P. Cox - Science Librarian

#### **Education**

R. Kevin McIntyre - Education Coordinator

Jessica D. McCorvey - Education Program Assistant

Mark A. Melvin - Education Technician / Conservation Management

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#### Conservation

James B. Atkinson, Jr. - Natural Resource Manager

T. Scott Smith - Assistant Natural Resource Manager

Steven B. Jack - Conservation Ecologist

Brandon T. Rutledge - Conservation Biologist

Bobby E. Bass - Conservation Technician II

Mark A. Melvin - Conservation Management / Education Technician

Joel L. Rackley - Agricultural Specialist

David C. Varnadoe - Conservation Horticulturist

#### **Maintenance and Operations**

H. Kip Davis – Operations Manager

Dennis J. Williams - Maintenance Manager

#### Administration

Lindsay R. Boring - Director

Becky H. Gay – Business Administrator

Cindy C. Craft – Administrative and Human Resource Assistant

Denise R. Rovig - Assistant to the Director

Rosanne B. Bohannon - Procurement Specialist / Accounting Assistant

\*Larry E. Ethridge - Security Supervisor

Robert S. Lynch - Accountant

T. David Green - Security Officer

\*Jessica A. Hall – Receptionist

\* has left the Center

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#### **Graduate Students**

#### **Graduated 2016**

Seasonal movements and habitat selection of gray foxes relative to prescribed fire and hardwood removal. (University of Georgia, M.S., L. M. Conner)

**Nicholas Deuel** 

Linking predation risk and fitness measurements to sustainability of eastern wild turkeys in a longleaf pine ecosystem: a habitat-based approach. (University of Georgia, Ph.D., **L. M. Conner**)

**Andy Little** 

The role of submerged aquatic vegetation (*Hydrilla verticillata*) on nutrient dynamics and freshwater aquatic food webs within Lake Seminole.

Stephen Shivers

(University of Georgia, Ph.D., S. W. Golladay)

The effect of habitat type, carcass size, and scavenger exclusion on vertebrate scavenging communities in the Coastal Plain of the Southeast. (University of Georgia, M.S., L. M. Conner)

**Kelsey Turner** 

Long-term movement, dispersal and survivorship of gopher tortoises (*Gopherus polyphemus*) in southern Georgia.

**Alex Wright** 

(University of Georgia, M.S., L. L. Smith)

## **Current 2016 Projects**

Remote sensing and spatial analysis of aquatic vegetation in Lake Seminole, GA using unmanned aerial systems. (University of Georgia, M.S., **S. W. Golladay**)

**Philip Ashford** 

Interspecific variation in hydraulic redistribution and its importance to ecosystem processes in a xeric longleaf pine savanna.

Michael Belovitch

(University of Georgia, M.S., S. T. Brantley)

Environmental factors influencing white-tailed deer activity patterns.

Michael Biggerstaff

(University of Georgia, M.S., L. M. Conner)

Canopy recruitment dynamics in naturally regenerated longleaf pine woodlands. (University of Georgia, M.S., <b>L. M. Conner</b> )	Patrick Curtin
The role of stream drying on fish population dynamics in the lower Ichawaynochaway Creek Basin. (University of Georgia, M.S., <b>S. W. Golladay</b> )	Jessica Davis
An integrative study in the behavioral landscape ecology of Sherman's fox squirrels: implications for animal conservation n a changing world(University of Florida, Ph.D., <b>L. M. Conner</b> )	Catherine Frock
Wading bird use of geographically isolated wetlands in the southeastern U.S. coastal plain. (Florida Atlantic University, M.S., <b>L. L. Smith</b> )	Camille Herteux
Development and evaluation of a camera survey technique for estimating population parameters of white-tailed deer ( <i>Odocoileus virginianus</i> ). (University of Georgia, Ph.D., <b>L. M. Conner</b> )	James Johnson
Food and fear: Using terrestrial mammals to decouple the drivers of habitat selection. (University of Florida, Ph.D., <b>L. M. Conner</b> )	Jessica Laskowski
Leaps and Bounds: Landscape connectivity through amphibian composition and genetics. (University of Georgia, M.S., L. L. Smith)	Cara McElroy
Stoichiometric implications of anuran production on energy and material fluxes in geographically isolated wetlands. (University of Alabama, M.S., <b>L. L. Smith</b> )	Scotty McLeay
Indigo snake reintroduction at Apalachicola Bluffs State Preserve. (Auburn University, M.S., <b>L. L. Smith</b> )	Sara Piccolomini
Fox squirrel behavioral response to multiple predators. (University of Florida, M.S., <b>L. M. Conner</b> )	Alex Potash
Using an ecosystem engineer to restore functionality of natural pinelands in the southeastern United States. (University of Georgia, Ph.D., <b>L. M. Conner</b> )	J.T. Pynne

Effects of fire regime on subcortical Insects, tree physiology, and their Interactions in longleaf pine (*Pinus palustris*) (University of Georgia, Ph.D., **S. T. Brantley**)

**Haley Ritger** 

Response of vertebrates to hardwood and shrub encroachment. (University of Florida, Ph.D., **L. M. Conner**)

**Adia Sovie** 

Maximum entrophy and its role in the carbon and energy cycling of subtropical longleaf pine savannas. (University of Alabama, Ph.D., **L. R. Boring**)

**Susanne Wiesner** 

## **Jones Center Advisory Committee**

Dr. Jim Vose (2013-present) Chair (2015-present) Research Ecologist and Project Leader U.S. Forest Service, Southern Research Station Center for Integrated Forest Science

Dr. Jerry F. Franklin (1988-present), Founding Member Professor of Ecosystem Management College of Forest Resources University of Washington

Mr. Robert Larimore (2010-present) Natural Resources Program Manager US Army Installation Management Command Fort Sam Houston, Texas

Dr. Gene E. Likens (1988-present), Founding Member Distinguished Senior Scientist, Ecologist Founding Director and President Emeritus Cary Institute of Ecosystem Studies

Dr. Nova J. Silvy (2010-present)
Regents Professor
Department of Wildlife and Fisheries Sciences
Texas A&M University

Dr. Bernard "Bern" W. Sweeney (2016-Present) Director, President, Senior Research Scientist Stroud Water Research Center Avondale, Pennsylvania

#### **Guest Seminars**

- Dr. Elizabeth Benton. Forest Health Outreach Specialist, Entomologist, University of Georgia. "Assessment of chemical treatments for hemlock woolly adelgids and stream water quality."
- Dr. Stephanie Bohlman. Assistant Professor, School of Forest Resources and Conservation, University of Florida, Gainesville, Florida. "Remote sensing of forest composition and dynamics in temperate and tropical forests."
- Dr. Charles Canham. Senior Scientist, Cary Institute of Ecosystem Studies, Millbrook, New York. "Disentangling responses to climate change versus broader anthropogenic impacts in forests of the eastern United States."
- Dr. Jack Ewel. Professor Emeritus, Department of Biology, University of Florida. "Tree monocultures or mixtures? A case study from the tropics."
- Dr. Dennis W. Hallema. Hydrologist, U.S. Forest Service, Fellow of the Oak Ridge, Institute for Science and Education, Raleigh, North Carolina. "Hydrologic effects of wildfire and associated management strategies in forests of the contiguous United States."
- Dr. Ben Knapp. Assistant Professor, Silviculture, Superintendent, Baskett Wildlife Research and Education Center, Department of Forestry, University of Missouri, Columbia, Missouri. "Striking a balance in woodland management: Effects of fire on forest regeneration in eastern woodland ecosystems."
- Dr. Jacob LaFontaine, Hydrologist, USGS, Norcross, Georgia. "Ecohydrology, water resources and sustainable forest management in the Southeast."
- Stephanie Laseter. Biological Scientist, Southern Research Station, Experimental Forest Network Lead, U.S. Forest Service, Franklin, North Carolina. "A strategic vision for experimental forests in the South."
- **Dr. Andy Little**. Postdoctoral Research Associate, Warnell School of Forestry and Natural Resources, University of Georgia. "Ecology of female Eastern wild turkeys (*Meleagris gallopavo silvestris*) in frequently-burned pine savannas in southwestern Georgia."
- Dr. Rachel L. Nifong. Postdoctoral Investigator, Appalachian Laboratory, University of Maryland, Center for Environmental Science. "Water quality and quantity dynamics in a changing karst environment."

- Dr. Joshua Millspaugh. Boone and Crockett Professor of Wildlife Conservation, University of Montana. "Consumption and conservation: New views on old data and persistent problems."
- Dr. Kevin Robertson. Fire Ecology Program Director at Tall Timbers, Tallahassee, Florida. "Soil disturbance in the upland longleaf pine ecosystem Conservation concerns in an old-growth grassland."
- Dr. Scott Rush. Assistant Professor, Wildlife Ecology and Management, Mississippi State. "From alpha to omega: Insights into species interactions for community diversity."
- Dr. Greg Starr. Associate Professor, Biological Sciences, University of Alabama. "Understanding the patterns and processes in longleaf pine ecosystems carbon dynamics across an edaphic gradient."
- Dr. Ge Sun. Research Hydrologist, U.S. Forest Service, Eastern Forest Environmental Threat Assessment Center, Southern Research Station, Raleigh, North Carolina. "Ecohydrology, water resources and sustainable forest management in the Southeast."
- Alexander D. Wright. M.S., Graduate Assistant, Warnell School of Forestry and Natural Resources, University of Georgia. "Long-term population ecology and movement patterns of gopher tortoises (*Gopherus polyphemus*) in southwest Georgia."

## **Collaborating Organizations**

**Auburn University** 

Florida Atlantic University

University of Alabama

University of Florida

University of Georgia

University of Illinois

University of Missouri

University of Tennessee

University of Washington

America's Longleaf Restoration Initiative

Flint River Soil and Water Conservation District

Florida Fish and Wildlife Commission

Georgia Dept. of Natural Resources

Georgia Forestry Commission

Larson & McGowin Forestry Consultants

Lolly Creek Consultants

National Environmental Observatory Network

National Coalition of Prescribed Fire Councils

Neptune and Company

The Longleaf Alliance

The Nature Conservancy

U.S. Geological Survey

U.S. Forest Service

U.S. Environmental Protection Agency

U.S. Fish & Wildlife Service

White Oak Forestry

Wildland Fire Leadership Council

#### ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425 Form 990-PF, Year 2016, Page 6, Part VIII COMPENSATION OF TRUSTEES AND OFFICERS

( a ) Name and Address	(b) Title Hours	Hours	er .	( d ) Contributions to Benefit Plans				(e) Expenses
(2)	(3,7,1,	Per Week		403b	457b**	Insurance Benefits*	457f**	
TRUSTEES:								
James B. Williams 191 Peachtree Street, Suite 3540 Atlanta, Georgia 30303	Trustee Chairman	8	35,000			1,485		
Jenner Wood 191 Peachtree Street, Suite 3540 Atlanta, Georgia 30303	Trustee Vice- Chairman	1	25,000			1,485		
Wilton Looney 191 Peachtree Street, Suite 3540 Atlanta, Georgia 30303	Trustee	1	25,000			1,485		
Lawrence Gellerstedt 191 Peachtree Street, Suite 3540 Atlanta, Georgia 30303	Trustee	1	25,000			1,485		
Thomas Lawley 191 Peachtree Street, Suite 3540 Atlanta, Georgia 30303	Trustee	1	25,000			1,485		
TOTAL TRUSTEES			135,000			7,425		
OFFICERS:								
P. Russell Hardin 191 Peachtree Street, Suite 3540 Atlanta, Georgia 30303	President	23	211,014	8,172	6,664	17,296	16,817	858
Erik S. Johnson 191 Peachtree Street, Suite 3540 Atlanta, Georgia 30303	Secretary Treasurer	23	92,550	7,709	6,173	10,067	0	588
				15,880	12,836	27,363	16,817	
TOTAL OFFICERS			303,564		72,8	897		1,446
TOTAL - TRUSTEES & OFFICERS			438,564		80,	322		1,446

<sup>\*</sup> Insurance: Trustees - Directors & Officers Liability only

Officers - Directors & Officers Liability, Medical, Life, Disability, Dental, Workers Compensation and Travel Accident

 $<sup>\</sup>ensuremath{^{**}457b}$  and 457f not expensed and not included in Part I, Line 15

 $<sup>457\</sup>mbox{f}$  - unvested and contingent upon the employee working to a specified age.

## ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425 990-PF, Year 2016, Page 8, Part X, Line 1e

As of December 31, 2016, the Foundation owned 61,093,895 shares of The Coca-Cola Company common stock. These represent approximately 1.42% of the total average of 4,288 million shares outstanding which is an insignificant decrease from the 2012 amount evaluated in the attached opinion letter.

The average monthly fair market value of the Foundation's Coca-Cola stock before applying the blockage discount was \$2,697,063,319. Based upon the attached opinion letter from Shearwater Valuation Associates, the Foundation applied a blockage discount factor of 3.41%.

\$2,697,063,319 @ 3.41% = \$91,969,859

#### ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425 Form 990-PF, Year 2016, Page 8, Part X, Line 1e

April 25, 2013

Mr. Erik S. Johnson General Counsel and Secretary The Robert W. Woodruff Foundation, Inc. 191 Peachtree Street, N.E. Suite 3450 Atlanta, Georgia 30303

Dear Mr. Johnson:

At your request Shearwater Valuation Associates, LLC ("SVA") was retained to prepare a valuation analysis and appraisal (Valuation Engagement and Conclusions of Value) and detailed appraisal report ("Appraisal Report") to assist in the determination of blockage discounts for 65,135,390 shares, 31,573,400 shares and 26,680,000 shares of the common stock ("Subject Property") of The Coca-Cola Company ("Coca-Cola" or "The Company"). The valuation date is December 31, 2012. The Conclusions of Value and Appraisal Report are to be used only as of this date and are not valid as of any other date.

We have performed a Valuation Engagement and present our detailed report in conformity with the "Statement of Standards for Valuation Services No. 1" (SSVS) of the American Institute of Certified Public Accountants. SSVS defines a Valuation Engagement as "an engagement to estimate value in which a valuation analyst determines an estimate of the value of a subject interest by performing appropriate procedures, as outlined in the AICPA Statement on Standards for Valuation Services, and is free to apply the valuation approaches and methods he or she deems appropriate in the circumstances. The valuation analyst expresses the results of the valuation engagement as a conclusion of value, which may be either a single amount or a range." SSVS defines a Conclusion of Value as "an estimate of the value of a business, business ownership interest, security, or intangible asset, arrived at by applying the valuation procedures appropriate for a valuation engagement and using professional judgment as to the value or range of values based on those procedures." SSVS addresses a detailed report as follows: "The detailed report is structured to provide sufficient information to permit intended users to understand the data, reasoning, and analyses underlying the valuation analyst's conclusion of value."

This Valuation Engagement was performed to assist in the determination of the blockage discounts for the Subject Property solely for the purpose of Client's preparation of 990-PF tax returns ("Specified Purpose"). The resulting Conclusions of Value should not be used for any other purpose, or by any other party for any purpose, without our express written consent.



#### ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425 Form 990-PF, Year 2016, Page 8, Part X, Line 1e

Mr. Erik S. Johnson April 25, 2013 Page Two

The standard of value is fair market value, defined as "the price at which the property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of relevant facts." Revenue Ruling 59-60 also defines the hypothetical willing buyer and seller as follows: "Court decisions frequently state in addition that the hypothetical buyer and seller are assumed to be able, as well as willing, to trade and to be well informed about the property and concerning the market for such property." Furthermore, fair market value assumes that the price is transacted in cash or cash equivalents. Revenue Ruling 59-60, while used in tax valuations, is also used in many non-tax valuations. We considered all the factors described in Revenue Ruling 59-60, as modified and amplified by subsequent rulings, which states that all relevant factors should be considered, including:

- The nature and history of the business;
- The general economic outlook;
- The general industry outlook;
- The book value of the stock and the financial condition of the business;
- The earnings and distribution paying capacity of the business;
- The intangible assets of the business;
- Sales of the business interest and the size of the subject property; and
- Stock prices of similar publicly traded companies.

Fair market value is also defined in a similar way in the *International Glossary of Business Valuation Terms*<sup>2</sup> as "the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts."

The premise of value is liquidation. The type of liquidation is orderly, which assumes assets are sold over a reasonable period of time to maximize the proceeds received.

<sup>&</sup>lt;sup>2</sup> The *International Glossary of Business Valuation Terms* has been jointly adopted by the AICPA, ASA, Canadian Institute of Chartered Business Valuators, NACVA and the IBA.



<sup>&</sup>lt;sup>1</sup> Revenue Ruling 59-60 has been modified by Revenue Ruling 65-193 and further amplified by Revenue Rulings 77-287 and 83-120.

#### ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425 Form 990-PF, Year 2016, Page 8, Part X, Line 1e

Mr. Erik S. Johnson April 25, 2013 Page Three

There were no restrictions or limitations in the scope of our work or data available for analysis. We did not rely on the work of a third-party specialist in developing our Conclusions of Value. We believe the analyses, opinions, and conclusions of this Appraisal Report were completed in conformity with the American Institute of Certified Public Accountants Statement on Standards for Valuation Services No. 1 and the standards of the National Association of Certified Valuators and Analysts for conducting and reporting on business valuations. In performing our Valuation Engagement, we performed various economic, industry and market research. Our Conclusions of Value are based on the economic, market and business conditions as they existed as of the effective valuation date, based on information available at that time. We first evaluated the most advantageous method of disposing the Subject Property available to the hypothetical seller, and concluded a gradual open-market liquidation of the shares appears to provide the greatest present value of net proceeds relative to the time and transaction costs (including professional fees) associated with other disposal methods. We estimated the amount of time required to gradually liquidate the shares of each block in an orderly fashion in the open market, and calculated the present value of future proceeds based on the December 31, 2012 freely-traded share price. We then calculated the costs of a hypothetical put option required to protect the December 31, 2012 share price.

The approaches and methodologies used in our work did not comprise an examination or any attest service in accordance with generally accepted accounting principles, the objective of which is an expression of an opinion regarding the fair presentation of financial statements or other financial information, whether historical or prospective, presented in accordance with generally accepted accounting principles or auditing standards. We express no opinion and accept no responsibility for the accuracy and completeness of the financial information (audited, reviewed, compiled, internal, prospective or tax returns), or other data provided to us by others, and we have not verified such information unless specifically stated in this report. We assume that the financial and other information provided to us is accurate and complete, and we have relied upon this information in performing our valuation.

The Conclusions of Value are subject to the representations found in Section V of this report, and to the Statement of Assumptions and Limiting Conditions found in Appendix D. The Appraisal Report and Conclusions of Value stated herein are valid only as of December 31, 2012. We have no obligation to update this Appraisal Report or our Conclusions of Value for information that comes to our attention after the date of this Appraisal Report. Based on the analyses, procedures, assumptions and limiting conditions described herein, our Conclusions of Value regarding the blockage discounts for the Subject Property are as follows:



## ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425 Form 990-PF, Year 2016, Page 8, Part X, Line 1e

Mr. Erik S. Johnson April 25, 2013 Page Four

#### The Coca-Cola Company Summary of Estimated Blockage Discounts December 31, 2012

Block	l l	Discount Due to Disposition Period		Cost of Price Protection		=	Blockage Discount
65,135,390	0.042%	Exhibit III.A.		3.37%	Exhibit IV.A.		3.41%
31,573,400	0.042%	Exhibit III.B.		2.26%	Exhibit IV.B.		2.31%
26,680,000	0.04%	Exhibit HLC.		2.10%	Exhibit IV.C.		2.14%

We appreciate the opportunity to serve you in this matter.

Sincerely,

BY:

Robert A. Ethridge, CFA, CPA, CVA

Shearwater Valuation Associates, LLC

Promenade Two

1230 Peachtree Street, N.E.

Suite 1900

Atlanta, Georgia 30309



#### ROBERT W. WOODRUFF FOUNDATION, INC. - # 58-1695425 Form 990-PF, Year 2016, Page 10, Part XV, Line 2 INFORMATION REGARDING GRANT PROGRAMS

(a) P. Russell Hardin, President
 Robert W. Woodruff Foundation, Inc.
 191 Peachtree Street, NE
 Suite 3540
 Atlanta, Georgia 30303

Telephone: (404) 522-6755

- (b) Application form not required. Proposals should be made in letter form and include the following information:
  - A description of the organization, its purposes, programs, staffing and governing board
  - The organization's latest financial statements including the most recent audit report
  - A description of the proposed project and full justification for its funding
  - An itemized project budget, including other sources of support in hand or anticipated
  - Evidence from the IRS of the organization's tax-exempt status and that the applying organization itself is not a private foundation
- (c) Grant applications are considered semi-annually in April and November for requests received by the first of February and September.
- (d) Grants generally are limited to tax-exempt charities and selected governmental agencies located and operating in Georgia, with primary interest to the metropolitan Atlanta area. Grants to qualified public charities headquartered outside Georgia occasionally are considered when it is demonstrated that the proposed project will have particular impact in Georgia and fits within the program interests of the Foundation. These interests are focused on the following program areas:
  - Elementary, secondary and higher education
  - Health care and education
  - Human services, particularly for children and youth
  - Economic development and civic affairs
  - Art and cultural activities
  - Conservation of natural resources and environmental education

Grants for regular operating expenses are avoided.

No grants are made to individuals.

#### ROBERT W. WOODRUFF FOUNDATION, INC. - #58-1695425 Form 990-PF, Year 2016, Page 11, Part XV, Line 3b GRANTS APPROVED FOR FUTURE PAYMENT

Recipient	Foundation Status	Purpose of Grant	Amount
ARTS AND CULTURE Jekyll Island Foundation 100 James Road Jekyll Island, GA 31527	PC	Renovation of the Jekyll Island Museum.	750,000
COMMUNITY DEVELOPMENT Foundation Center 32 Old Slip, 24th Floor New York, NY 10005	PC	Two-year program support of the Foundation Center Atlanta (\$275,000 per year).	275,000
EDUCATION Georgia Council on Economic Education P.O. Box 1619 Atlanta, GA 30301-1619	PC	Program support.	400,000
Georgia Partnership for Excellence in Education 270 Peachtree Street, Suite 2200 Atlanta, GA 30303	PC	Continuation of the Woodrow Wilson Georgia Teaching Fellowship to recruit and prepare highly-qualified STEM teachers for public middle and high schools.	4,350,000
		TOTAL EDUCATION	4,750,000
ENVIRONMENT Ichauway, Incorporated 3988 Jones Center Drive Newton, GA 39870	POF	2017 capital and operating needs.	8,975,000
HEALTH Georgia Prevention Project 3715 Northside Parkway, Suite 1-230 Atlanta, GA 30327	PC	Campaign to educate youth about the risks of prescription drug abuse.	250,000
HUMAN SERVICES Special Olympics Georgia 4000 Dekalb Technology Parkway Suite 400, Building 400 Atlanta, GA 30340	PC	\$5.5 million campaign to construct a new building to provide athletic training and administrative space.	1,000,000
		TOTAL GRANTS	16,000,000
Foundation status of recipient:	PC POF	Public charity described in 509(a)(1) or (2) Private operating foundation (section 4942(j)(3)) other than an EOF	