FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL | | | | | | | | | |
|---------------------|-----------|--|--|--|--|--|--|--|--|
| OMB Number: | 3235-0287 | | | | | | | | |
| Estimated average I | hurden | | | | | | | | |

0.5

hours per response:

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person* <u>LUX ANDREW L</u> | | | | | | 2. Issuer Name and Ticker or Trading Symbol AtriCure, Inc. [ATRC] | | | | | | | | all app Direc | olicable) ctor | | Owner | |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--|------------------------------|------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------|-------------------------------|----------------|--------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------|------------|--|
| (Last) (First) (Middle) 7555 INNOVATION WAY | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 06/30/2016 | | | | | | | X | belov | | | r (specify v) | | |
| (Street) MASON (City) | OF | | 15040 Zip) | | 4. If | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | 6. Indiv Line) X | Forn Forn | or Joint/Group Filing (Check Applicable rm filed by One Reporting Person rm filed by More than One Reporting rson | | | |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transactic Date (Month/Day/ | | | | | Execution Date, | | 3. Transaction Code (Instr. 8) 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4 | | | and 5) Secur Benef Owne | | icially d Following | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | | | |
| | | | | | | | | Code | v | Amount (A) or (D) | | r Pri | ce | Reported Transaction(s) (Instr. 3 and 4) | | | (111501.4) | |
| Common Stock 06/30/20 | | | | 2016 | 016 | | A | V | 1,181(1) | A | \$1 | \$12.01(2) | | 4,632 | D | | | |
| Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | | | | | | | | | | | |
| 1. Title of Derivative Security (Instr. 3) | Conversion or Exercise (Month/Day/Year) Execution Date, if any (Month/Day/Year) Security | | 4. Transa Code (8) | | nstr. Derivative Securities Acquired (A) or Disposed of (D) ((Instr. 3, 4 and 5) | | 6. Date Exercisable and Expiration Date (Month/Day/Year) Date Expiration Date Expiration Date | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) Amoun or Numbe of Title Shares | | Deri Sec (Ins: | rice of vative urity tr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Ownership Form: Direct (D) or Indirect (I) (Instr. 4 | Beneficial Ownership (Instr. 4) | | | |

Explanation of Responses:

- 1. Shares acquired pursuant to the AtriCure, Inc. 2008 Employee Stock Purchase Plan for the period ended June 30, 2016.
- 2. Closing price on June 30, 2016 was \$14.13.

Remarks:

/s/ Andrew L. Lux

07/05/2016

** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.