

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 14A

**Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934
(Amendment No. __)**

Filed by the Registrant Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
 Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
 Definitive Proxy Statement
 Definitive Additional Materials
 Soliciting Material Pursuant to §14a-11(c) or Rule 14a-12

AtriCure, Inc.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required
 Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11
(1) Title of each class of securities to which transaction applies:

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(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

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(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:



ATRICURE, INC.

6217 Centre Park Drive
West Chester, Ohio 45069

**NOTICE OF 2011 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON MAY 18, 2011**

To Our Stockholders:

You are cordially invited to attend the 2011 Annual Meeting of Stockholders (the "Annual Meeting") of AtriCure, Inc. (the "Company" or "AtriCure"). The Annual Meeting will be held at our principal executive offices located at 6217 Centre Park Drive, West Chester, Ohio 45069 on Wednesday, May 18, 2011, for the following purposes, as more fully described in the accompanying proxy statement:

1. To elect eight directors to serve for a one-year term that expires at the 2012 Annual Meeting of Stockholders and until their successors have been duly elected and qualified;
2. To ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the year ending December 31, 2011; and
3. To transact such other business as may properly come before the Annual Meeting.

The Annual Meeting will begin promptly at 9:00 a.m. (EDT) and check-in will begin at 8:30 a.m. (EDT). Only holders of record of shares of AtriCure common stock (Nasdaq: ATRC) at the close of business on April 1, 2011, will be entitled to notice of, and to vote at, the Annual Meeting and any postponements or adjournments of the Annual Meeting.

We are pleased again to take advantage of U.S. Securities and Exchange Commission rules that allow companies to furnish their proxy materials over the Internet. As a result, we are mailing to most of our stockholders a Notice of Internet Availability of Proxy Materials (the "Notice") with this proxy statement and our 2010 Annual Report. The Notice contains instructions on how to access and review those documents over the Internet. The Company believes that this process allows us to provide our stockholders with the information they need in a more timely manner.

A complete list of stockholders entitled to vote at the Annual Meeting will be available for examination by any stockholder for any purpose in connection with the Annual Meeting during normal business hours at our principal executive offices for a period of at least 10 days prior to the Annual Meeting.

By order of the Board of Directors,

/s/ Julie A. Piton

Julie A. Piton

Vice President, Finance and Administration and Chief Financial Officer

West Chester, Ohio
April 18, 2011

YOUR VOTE IS IMPORTANT!

REGARDLESS OF WHETHER YOU PLAN TO ATTEND THE ANNUAL MEETING, PLEASE PROMPTLY COMPLETE, SIGN, DATE AND RETURN THE ENCLOSED PROXY CARD IN THE ACCOMPANYING POSTAGE-PAID ENVELOPE, WHICH REQUIRES NO ADDITIONAL POSTAGE IF IT IS MAILED IN THE UNITED STATES. EVEN IF YOU HAVE VOTED BY PROXY, YOU MAY STILL VOTE IN PERSON IF YOU ATTEND THE ANNUAL MEETING. YOU MAY REVOKE YOUR PROXY AT ANY TIME BEFORE IT IS VOTED AT THE ANNUAL MEETING.

ATRICURE, INC.

*****IMPORTANT NOTICE*****

Regarding Internet Availability of Proxy Materials
for the Annual Meeting to be held on May 18, 2011

You are receiving this communication because you hold shares in the above company, and the materials you should review before you cast your vote are now available.

The proxy statement and annual report to security holders are available at:
<http://phx.corporate-ir.net/phoenix.zhtml?c=189981&p=proxy>



ATRICURE, INC.

**PROXY STATEMENT
FOR
2011 ANNUAL MEETING OF STOCKHOLDERS**

The Board of Directors of AtriCure, Inc., a Delaware corporation, is soliciting the enclosed proxy from you. The proxy will be used at our 2011 Annual Meeting of Stockholders to be held on Wednesday, May 18, 2011, beginning at 9:00 a.m. (EDT) at our principal executive offices located at 6217 Centre Park Drive, West Chester, Ohio 45069, and at any postponements or adjournments thereof. This proxy statement contains important information regarding the 2011 Annual Meeting of Stockholders. Specifically, it identifies the matters upon which you are being asked to vote, provides information that you may find useful in determining how to vote and describes the voting procedures.

In this proxy statement: the terms “we,” “our,” “us,” “AtriCure” and the “Company” each refer to AtriCure, Inc.; the term “Board” means our Board of Directors; the term “proxy materials” means this proxy statement, the enclosed proxy card and our Annual Report on Form 10-K for the year ended December 31, 2010, filed with the U.S. Securities and Exchange Commission, or SEC, and the term “meeting” means our 2011 Annual Meeting of Stockholders.

We are sending these proxy materials on or about April 18, 2011, to all stockholders of record at the close of business on April 1, 2011 (the “Record Date”).

**QUESTIONS AND ANSWERS REGARDING THIS SOLICITATION
AND VOTING AT THE ANNUAL MEETING**

Why am I receiving these proxy materials?

We sent you these proxy materials because our Board is soliciting your proxy to vote at the meeting. As a stockholder of record at the close of business on April 1, 2011, you are invited to attend the meeting and are entitled to and requested to vote on the items of business described in this proxy statement.

What information is contained in this proxy statement?

The information in this proxy statement relates to the proposals to be voted on at the meeting, the voting process, the compensation of our directors and most highly paid executive officers in 2010 and certain other required information.

Who is entitled to vote at the meeting?

Only stockholders who owned our common stock at the close of business on April 1, 2011 are entitled to notice of and to vote at the meeting, and at any postponements or adjournments thereof. If you are not a stockholder of record but hold shares in street name (that is, through a broker or nominee), you will need to provide proof of beneficial ownership as of April 1, 2011, such as your most recent brokerage account statement, a copy of the voting instruction card provided by your broker, trustee or nominee, or other similar evidence of ownership. All stockholders should be prepared to present photo identification for admittance.

What items of business will be voted on at the meeting?

The items of business scheduled to be voted on at the meeting are:

1. The election of eight nominees to serve as directors on our Board; and
2. The ratification of the appointment of our independent registered public accounting firm for the 2011 year.

These proposals are described more fully below. As of the date of this proxy statement, this is the only business that our Board intends to present or knows of that others will present at the meeting. If any other matter or matters are properly brought before the Annual Meeting or any postponement or adjournment thereof, each properly executed proxy card will be voted in the discretion of the proxies named therein.

How does the Board of Directors recommend that I vote?

Our Board recommends that you vote your shares:

- (1) "FOR" each of the director nominees; and
- (2) "FOR" the ratification of our independent registered public accounting firm for the 2011 year.

What are my voting rights?

On each matter to be voted upon, you have one vote for each share of common stock you own as of April 1, 2011. You may vote all shares owned by you as of April 1, 2011, including (1) shares held directly in your name as the *stockholder of record*, and (2) shares held for you as the *beneficial owner* through a broker, trustee or other nominee such as a bank.

What constitutes a quorum?

A quorum is required to conduct business at the meeting. The presence at the meeting, in person or by proxy, of the holders of a majority of the shares of our common stock entitled to vote at the meeting will constitute a quorum. As of April 1, 2011, 16,069,345 shares of our common stock were outstanding. Both abstentions and broker non-votes are counted for the purpose of determining the presence of a quorum.

What is the difference between holding shares as a stockholder of record and as a beneficial owner?

If your shares are registered directly in your name with our transfer agent, American Stock Transfer & Trust Company, you are considered, with respect to those shares, the *stockholder of record*, and these proxy materials are being sent directly to you by us. As the *stockholder of record*, you have the right to grant your voting proxy directly to the persons named as proxy holders or to vote in person at the meeting. We have enclosed a proxy card for your use.

If your shares are held in a brokerage account or by another nominee, you are considered the *beneficial owner* of shares held in *street name*, and these proxy materials are being forwarded to you together with a voting instruction card. As the beneficial owner, you have the right to direct your broker, trustee or nominee how to vote and are also invited to attend the meeting. Please note that since a beneficial owner is not the *stockholder of record*, you may not vote these shares in person at the meeting unless you obtain a "legal proxy" from the broker, trustee or nominee that holds your shares, which gives you the right to vote the shares at the meeting. Your broker, trustee or nominee has enclosed or provided voting instructions for your use in directing the broker, trustee or nominee how to vote your shares.

How can I vote my shares in person at the meeting?

Shares held in your name as the stockholder of record may be voted in person at the meeting. Shares held beneficially in street name may be voted in person only if you obtain a legal proxy from the broker, trustee or nominee that holds your shares, which gives you the right to vote the shares. Even if you plan to attend the meeting, we recommend that you also submit your proxy card or voting instructions as described below so that your vote will be counted if you later decide not to, or are unable to, attend the meeting.

Can I vote my shares without attending the meeting?

Whether you hold shares directly as the stockholder of record or beneficially in street name, you may direct how your shares are voted without attending the meeting. Stockholders of record may submit proxies by completing, signing and dating their proxy cards and mailing them in the accompanying pre-addressed envelope. Stockholders holding shares beneficially in street name may vote by mail by completing, signing and dating the voting instruction cards provided by their broker, trustee or nominee and mailing them in the accompanying pre-addressed envelope.

What if I want to revoke and change my vote?

You may change your vote at any time prior to the vote at the meeting. If you are the stockholder of record, you may change your vote by granting a new proxy bearing a later date (which automatically revokes the earlier proxy), by providing a written notice of revocation to our Secretary prior to your shares being voted or by attending the meeting and voting in person. Please note that attending the meeting will not cause your previously granted proxy to be revoked unless you specifically so request. For shares you hold beneficially in street name, you may change your vote by submitting new voting instructions to your broker, trustee or nominee, or if you have obtained a legal proxy from your broker, trustee or nominee, which gives you the right to vote your shares, by attending the meeting and voting in person.

What vote is required to approve each item and how are votes counted?

The vote required to approve each item of business and the method for counting votes is set forth below:

- **Election of Directors.** The eight director nominees receiving the highest number of affirmative “FOR” votes at the meeting (a plurality of votes cast) will be elected to serve as directors. You may vote “FOR” all of the director nominees or “WITHHOLD” your vote for any or all director nominees. A properly executed proxy marked “WITHHOLD” with respect to the election of one or more director nominees will not be voted with respect to the director or directors indicated, although it will be counted for purposes of determining whether there is a quorum.
- **Ratification of the Independent Registered Public Accounting Firm.** For the approval of the ratification of the independent registered public accounting firm, the affirmative “FOR” vote of a majority of the shares represented in person or by proxy and entitled to vote will be required for approval. You may vote “FOR,” “AGAINST” or “ABSTAIN” for this item of business. If you “ABSTAIN,” your abstention has the same effect as a vote “AGAINST”.

If you provide specific instructions with regard to certain items, your shares will be voted as you instruct on such items. If you sign your proxy card or voting instruction card without giving specific instructions, your shares will be voted in accordance with the recommendations of the Board (“FOR” all of the nominees to the Board, “FOR” ratification of the independent registered public accounting firm, and in the discretion of the proxy holders on any other matters that properly come before the meeting).

What is a “broker non-vote”?

Under the rules that govern brokers who have record ownership of shares that are held in street name for their clients, who are the beneficial owners of the shares, brokers have the discretion to vote such shares on routine matters. The ratification of the appointment of an independent public accounting firm (Proposal 2) is considered a routine matter. Your broker, therefore, may vote your shares in its discretion on this routine matter if you do not instruct your broker how to vote on them. If a matter is not considered routine, then your broker is prohibited from voting your shares on the matter unless you have given voting instructions on that matter to your broker. **Because Proposal 1 (election of directors) is not considered routine, brokers holding shares for their customers will not have the ability to cast votes with respect to Proposal 1 unless they have received instructions from their customers. It is important, therefore, that you provide instructions to your broker if your shares are held by a broker so that your vote with respect to Proposal 1 is counted. Your broker, therefore, will need to return a proxy card without voting on Proposal 1 if you do not give voting instructions with respect to the matter. This is referred to as a “broker non-vote.”**

How are “broker non-votes” counted?

Broker non-votes will be counted for the purpose of determining the presence of a quorum for the transaction of business, but they will not be counted in tabulating the voting result for any particular proposal.

How are abstentions counted?

If you return a proxy card that indicates an abstention from voting, the shares represented will be counted for the purpose of determining both the presence of a quorum and the total number of shares represented and entitled to vote with respect to a proposal (other than with respect to the election of directors), but they will not be voted on any matter at the meeting. Accordingly, abstentions will have the same effect as a vote “AGAINST” Proposal 2.

What happens if additional matters are presented at the meeting?

Other than the two proposals described in this proxy statement, we are not aware of any other business to be acted upon at the meeting. If you grant a proxy, the persons named as proxy holders, Julie A. Piton (our Vice President, Finance and Administration and Chief Financial Officer) and David J. Drachman (our President and Chief Executive Officer), will have the discretion to vote your shares on any additional matters properly presented for a vote at the meeting. If, for any unforeseen reason, any of our nominees is not available as a candidate for director, the persons named as proxy holders will vote your proxy for such other candidate or candidates as may be nominated by our Board.

Who will serve as inspector of election?

The Secretary of the Company will tabulate the votes and act as inspector of election at the meeting.

What should I do in the event that I receive more than one set of proxy/voting materials?

You may receive more than one set of these proxy solicitation materials, including multiple copies of this proxy statement and multiple proxy cards or voting instruction cards. For instance, if you hold your shares in more than one brokerage account, you may receive a separate voting instruction card for each brokerage account in which you hold shares. In addition, if you are a stockholder of record and your shares are registered in more than one name, you may receive more than one proxy card. Please complete, sign, date and return each proxy card and voting instruction card that you receive to ensure that all your shares are voted.

Who is soliciting my vote and who will bear the costs of this solicitation?

Your vote is being solicited on behalf of the Board, and the Company will bear the entire cost of solicitation of proxies, including preparation, assembly, printing and mailing of this proxy statement. In addition to these mailed proxy materials, our directors and employees may also solicit proxies in person, by telephone, by e-mail or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We may reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners. We may also engage the services of a professional proxy solicitation firm to aid in the solicitation of proxies from certain brokers, bank nominees and other institutional owners. Our costs for such services, if retained, will not be material.

Where can I find the voting results of the meeting?

We intend to announce preliminary voting results at the meeting and publish final results in a Current Report on Form 8-K within four business days after the meeting.

What is the deadline to propose actions for consideration at next year's annual meeting of stockholders or to nominate individuals to serve as directors?

As a stockholder, you may be entitled to present proposals for action at a future meeting of stockholders, including director nominations.

- **Stockholder Proposals:** For a stockholder proposal to be considered for inclusion in our proxy statement for the annual meeting to be held in 2012 (the "2012 Annual Meeting"), the written proposal must be received by the Secretary of AtriCure at our principal executive offices no earlier than November 19, 2011 and no later than December 19, 2011. However, if the date of our 2012 Annual Meeting changes by more than 30 days from the date of the meeting, then your notice must be received not later than the close of business on the later of (i) the 150th day prior to the date of the 2012 Annual Meeting or (ii) the 10th day following the date we make a public announcement of the date of the 2012 Annual Meeting. Such proposals must provide the information required by our Bylaws and also must comply with the requirements of Regulation 14A of the Securities Exchange Act of 1934 and any other applicable rules established by the SEC. Proposals should be addressed to:

AtriCure, Inc.
Attn: Secretary
6217 Centre Park Drive
West Chester, Ohio 45069

- **Nomination of Director Candidates:** You may propose director candidates for consideration by our Board. Any such recommendations should include the nominee's name and qualifications for Board membership and should be directed to our Secretary at the address set forth above. In addition, our Bylaws permit stockholders to nominate directors for election at an annual meeting of stockholders. To nominate a director, the stockholder must provide the information required by our Bylaws, as well as a statement by the nominee consenting to being named as a nominee and to serve as a director if elected. In addition, the stockholder must give timely notice to our Secretary in accordance with the provisions of our Bylaws, which require that the notice be received by our Secretary no earlier than November 19, 2011 and no later than December 19, 2011.
- **Copy of Bylaw Provisions:** You may contact our Secretary at our principal executive offices for a copy of the relevant Bylaws provisions regarding the requirements for making stockholder proposals and nominating director candidates.

PROPOSAL ONE—ELECTION OF DIRECTORS

The Board of Directors

Our Amended and Restated Certificate of Incorporation provides that each director shall be elected at each annual meeting of stockholders for a term of one year. Our Board currently consists of the following eight directors: Mark A. Collar, David J. Drachman, Donald C. Harrison, M.D., Michael D. Hooven, Richard M. Johnston, Elizabeth D. Krell, Ph.D., Mark R. Lanning and Karen P. Robards, whose terms expire at this meeting.

Director Nominees

The Nominating and Corporate Governance Committee recommended and the Board nominated the following people, each of whom are current directors, for re-election as directors: Mark A. Collar, David J. Drachman, Donald C. Harrison, M.D., Michael D. Hooven, Richard M. Johnston, Elizabeth D. Krell, Ph.D., Mark R. Lanning and Karen P. Robards. If elected, these nominees will hold office as directors until our 2012 Annual Meeting, and until their respective successors are elected and qualified or until their earlier death, resignation or removal.

Biographical Information of Directors and Director Nominees

The names of each member of the Board and nominee for director, where indicated, their ages as of April 1, 2011, length of service on the Board and certain biographical information is as follows:

Richard M. Johnston. Mr. Johnston, 76, has served as one of our directors since June 2002 and as Chairman of the Board since February 2005. From 2000 to 2010, Mr. Johnston served as a Managing Member of Camden Partners Holdings, LLC, a private equity firm, and he is now a Retired Member of that firm. Mr. Johnston currently serves as a director of BioMedical Enterprises, Inc., Lombard Medical Technologies PLC, Medivance, Inc. and Webmedx, Inc., all Camden Partners' portfolio companies of which Lombard Medical Technologies PLC is a publicly-held company in the United Kingdom. During the last five years Mr. Johnston previously served as director of privately-held LipoScience Inc. and as Chairman of privately-held Picis, Inc. as well as a director of Pet DRx Corporation, a publicly-held company. From 1961 to 2000, Mr. Johnston was employed by The Hillman Company, an investment holding company with diversified operations, where he served from 1970 to 2000 as Vice President, Investments and as a director. From 1979 to 2003, Mr. Johnston was Chairman of the Board of The Western Pennsylvania Hospital and its successors, The Western Pennsylvania Healthcare System and West Penn Allegheny Health System. Mr. Johnston received his B.S. from Washington and Lee University and his M.B.A. from The Wharton School, University of Pennsylvania. Mr. Johnston's service as a director of several medical device companies and chairman of the board of a large healthcare system provides him insight into the high-level corporate governance, executive compensation and business management matters that the Company and the Board consider on a regular basis.

Mark A. Collar. Mr. Collar, 58, has served as one of our directors since February 2008. Mr. Collar retired in 2008 as an executive from the Procter and Gamble Company where his roles included President of the Global Pharmaceuticals and Personal Health business. Mr. Collar joined Procter and Gamble in 1975 as a sales representative and assumed roles of progressive responsibility within their Health and Personal Care, Beauty Care, New Business Development and Personal Health Care products divisions. Mr. Collar joined Procter and Gamble's Pharmaceuticals division in 1994 and was named President of Global Pharmaceuticals in 2002. Mr. Collar is currently a venture partner at Triathlon Medical Ventures, a Midwest-based life science venture capital firm, and a director of First Financial Bancorp, a publicly-held bank holding company, in addition to several philanthropic positions. Mr. Collar received his B.S. from Northern Illinois University. Mr. Collar's experience as a public company executive and Board member provides him insight into high-level corporate governance and business management matters, which the Board considers on a regular basis.

David J. Drachman. Mr. Drachman, 52, has served as President, Chief Executive Officer and a director since October 2002. From 2000 to 2002, Mr. Drachman served as President of Impulse Dynamics N.V., a development stage medical device company focusing on implantable electrical solutions for the treatment of heart failure, diabetes and eating disorders. From 1997 to 1999, Mr. Drachman served in a variety of positions, including Vice President of Strategic Development at Biosense Webster, Inc., a Johnson & Johnson, Inc. subsidiary that designs and manufactures diagnostic and therapeutic cardiac catheters. In addition, Mr. Drachman has also served in a variety of positions at Ventritex, Inc. and Boston Scientific Corporation. Mr. Drachman received his B.A. from the University of Louisville and holds a North American Society of Pacing and Electrophysiology certification in Electrophysiology, Cardiac Pacing and Defibrillation. Mr. Drachman's position as the President and Chief Executive Officer of the Company gives him unique insights into the Company's business operations and corporate strategy, from which the Board uniquely benefits as result of his service as a director. Mr. Drachman also has experience with health care compliance issues central to the Company given that it operates in the surgical and medical device industry.

Donald C. Harrison, M.D. Dr. Harrison, 77, has served as one of our directors since November 2000. Since 2004, Dr. Harrison has served as a Managing Partner of Charter Life Sciences, L.P., a venture capital investment firm. He also serves as a director of several public and private companies, including Kendle International, a publicly-held clinical research company, EnteroMedics, Inc., a publicly-held developer of medical devices for the treatment of obesity and gastrointestinal disorders, Sidis Technologies, Inc., a privately-held information technology services company, CoRepair, Inc., a privately-held heart failure company, Ischemia Care LLC, a privately-held company that performs genetic testing for stroke, and Minimally Invasive Devices LLC, a privately-held medical device company that develops products that facilitate minimally invasive surgery. From 1986 to 2003, Dr. Harrison was the Senior Vice President and Provost for Health Affairs at the University of Cincinnati. In this capacity, he served as the Chief Executive Officer of the Medical Center. Dr. Harrison has previously served as a director of various publicly-held companies, including EP Technology, Inc., Novoste Corporation, InControl, Inc. and SciMed, Inc. From 2000 to 2003, Dr. Harrison served as a director of Enable Medical Corporation, a developer and manufacturer of surgical instruments that AtriCure acquired on August 10, 2005. From 1968 to 1986, Dr. Harrison served as co-director of the Falk Cardiovascular Research Center in Stanford, California, Professor of Medicine and William G. Irwin Professor of Cardiology at Stanford University School of Medicine and Chief of Cardiology at Stanford University Hospital. Dr. Harrison received his B.S. from Birmingham Southern College and his M.D. from the University of Alabama College of Medicine. Dr. Harrison has been a practicing cardiologist for the past 50 years, and he is a long-time member of, and prominent figure in, the medical device industry and has broad experiences in various healthcare-related fields. As a former chief executive, Dr. Harrison also brings unique perspectives on business operations and financial matters.

Michael D. Hooven. Mr. Hooven, 55, is one of our founders and has served as a director since August 2002 and as a consultant during 2007 and 2009. From August 2002 through December 2006, Mr. Hooven served as Chief Technology Officer and from August 2002 through February 2005 he served as Chairman of the Board. From November 2000 to August 2002, he served as our President and Chief Executive Officer. Mr. Hooven is currently President and Chief Executive Officer of Enable Medical Technologies, LLC, a start-up business focusing on opportunities in minimally invasive surgery. Since 1994 until its acquisition, Mr. Hooven served as Chairman of the Board, and has previously served as President and Chief Executive Officer of Enable Medical Corporation, a developer and manufacturer of surgical instruments that Mr. Hooven co-founded and that AtriCure acquired on August 10, 2005. Mr. Hooven is also a director of BioOhio, a non-profit organization which promotes the acceleration and growth of life science companies in Ohio, and Minimally Invasive Devices LLC, a privately-held medical device company that develops products that facilitate minimally invasive surgery. From 1986 to 1994, Mr. Hooven served as Director of New Product Development at Ethicon Endo-Surgery, Inc., a developer and manufacturer of minimally invasive surgical instruments. In addition, Mr. Hooven has also served in a variety of positions at Cordis Corporation and Siemens Medical of Siemens AG. Mr. Hooven received his B.S. and M.S. from the University of Michigan. As the founder of our Company, Mr. Hooven possesses a familiarity with respect to its operating history and, as a founder and senior executive of, and consultant to, several other companies in the medical and surgical device industry, he brings to the Board an industry-wide perspective that can be utilized in evaluating and improving the Company's competitive position.

Elizabeth D. Krell, Ph.D. Dr. Krell, 62, has served as one of our directors since June 2006. Dr. Krell is currently a private consultant on matters pertaining to FDA-regulated products, as well as FDA policies and procedures. From 2003 to 2004, she served as the Executive Vice President for Technology and Regulatory Affairs at the Advanced Medical Technology Association (AdvaMed), the largest trade association for medical device manufacturers. From 1975 to 2001, she served in the FDA, starting as a bench researcher and ending in the FDA's top science job as the Acting Senior Advisor for Science, advising the Commissioner and other top FDA officials on science and science management. Dr. Krell served from 1990 to 2001 as the Deputy Director for Science, in the FDA's Center for Devices and Radiological Health (CDRH). In this position she provided executive leadership in the development of programs to assure the safety and effectiveness of medical devices and diagnostic products, and the reduction of population exposure to radiation emitted from medical, industrial and consumer products. Previously, she directed CDRH's science and engineering labs. Dr. Krell received her B.A. from S.U.N.Y. Binghamton and her Ph.D. from Georgetown University. Dr. Krell brings valuable risk assessment and healthcare compliance skills to the Board as a result of her experience designing safety and effectiveness programs as well as familiarity with many aspects of the FDA's policies and procedures, which plays an important part in the Company's business.

Mark R. Lanning, C.P.A. Mr. Lanning, 56, has served as one of our directors since February 2006. Mr. Lanning currently serves as Vice President, Investor Relations of Hillenbrand, Inc., a diversified leader in the funeral services and materials handling industries. Prior to joining Hillenbrand in 1988, Mr. Lanning spent twelve years in various accounting positions with Ernst & Whinney (now Ernst & Young). Mr. Lanning, a Certified Public Accountant, also currently serves as a member of the Council of the American Institute of CPAs and is a past Chairman of the Indiana CPA Society. Mr. Lanning received his B.S. in Accounting from Ball State University. As a certified public accountant, Mr. Lanning developed significant experience in preparing, auditing, analyzing and evaluating financial statements and dealt with broad and complex accounting issues comparable to those of the Company, which qualifies him as an "audit committee financial expert" under SEC rules.

Karen P. Robards. Ms. Robards, 61, has served as one of our directors since November 2000. Since 1987, Ms. Robards has been a partner of Robards & Company, LLC, a financial advisory firm. From 1976 to 1987, Ms. Robards was an investment banker at Morgan Stanley where she headed its healthcare investment banking activities. Ms. Robards served as a director of Enable Medical Corporation from 1996 to 2005, a developer and manufacturer of surgical instruments, which we acquired on August 10, 2005. From 2007 to 2010, Ms. Robards also served as a director of Care Investment Trust, a publicly-held real estate investment trust focusing on investment opportunities in the healthcare industry. Ms. Robards currently serves as Vice Chair of the Board and Chair of the Audit Committee of BlackRock Closed-End Funds. Ms. Robards is a founder and director of the Cooke Center for Learning & Development, a not-for-profit educational organization in New York City. Ms. Robards received her B.A. from Smith College and her M.B.A. from Harvard Business School. The Board believes that the Company benefits from Ms. Robards' substantial knowledge and experience in the areas of corporate finance and capital markets, most of which was gained within the healthcare field. Ms. Robards also qualifies as an "audit committee financial expert" under SEC rules due to her experience in analyzing financial statements during her professional career and her membership on other public company audit committees.

Board of Directors' Recommendation

THE BOARD RECOMMENDS THAT YOU VOTE FOR EACH OF THE EIGHT NOMINEES FOR DIRECTOR LISTED ABOVE.

CORPORATE GOVERNANCE AND BOARD MATTERS

Independence of the Board

The Nasdaq Stock Market (“Nasdaq”) listing standards require that a majority of the members of a listed company’s board of directors qualify as “independent,” as affirmatively determined by the board of directors. Our Board consists of the following eight directors: Richard M. Johnston (Chairman), Mark A. Collar, David J. Drachman, Donald C. Harrison, M.D., Michael D. Hooven, Elizabeth D. Krell, Ph.D., Mark R. Lanning and Karen P. Robards. Our Board has affirmatively determined that each of the directors and nominees other than David J. Drachman, our President and Chief Executive Officer and Michael D. Hooven, who has been an employee and a consultant of ours, are independent directors under the listing standards established by Nasdaq. See “Certain Relationships and Related Party Transactions” below.

As required under the Nasdaq listing standards, our non-management directors meet in regularly scheduled executive sessions at which only independent directors are present.

Committees of the Board

Our Board has three standing committees: the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee. Each committee has a written charter which is available on our website at www.atricure.com under “Investor Relations-Corporate Governance.” From time to time, our Board may also appoint committees for special purposes. The table below provides the membership of each of the committees, with further discussion on each committee and its function below the table.

<u>Name</u>	<u>Audit</u>	<u>Compensation</u>	<u>Nominating and Corporate Governance</u>
Mr. Collar			X
Dr. Harrison, M.D.	X		X
Mr. Johnston		X	C
Dr. Krell, Ph.D			X
Mr. Lanning	C*	X	
Ms. Robards	X*	C	

C = Chair

* = Board designated “audit committee financial expert” under SEC rules.

Audit Committee. Our Audit Committee currently consists of Mark R. Lanning (Chair), Donald C. Harrison, M.D. and Karen P. Robards. Our Audit Committee is responsible for overseeing our financial controls, audit and reporting and reviews with our management and our independent auditors the effectiveness of our internal control over financial reporting and accounting and reporting practices and procedures. In addition, this Committee reviews the qualifications of our independent auditors, is responsible for their appointment, compensation, retention and oversight and reviews the scope, fees and results of activities related to audit and non-audit services. Our Board has determined that each member of the Audit Committee meets the independence and financial literacy requirements of the Nasdaq rules and the independence requirements of the SEC. Our Board has also determined that Mark R. Lanning and Karen P. Robards each qualify as an “audit committee financial expert,” as defined in SEC rules.

Compensation Committee. Our Compensation Committee currently consists of Karen P. Robards (Chair), Richard M. Johnston and Mark R. Lanning. The Compensation Committee’s principal responsibilities are to assist the Board in overseeing the Company’s management compensation policies and practices, including to determine and approve the compensation of our Chief Executive Officer, review and approve compensation levels for our other executive officers, review and approve management incentive compensation policies and programs, review and approve equity compensation programs for employees and exercise discretion in the

administration of those programs, review with management our disclosures under “Compensation Discussion and Analysis,” or CD&A, and produce an annual report on executive compensation that contains a recommendation with respect to inclusion of the CD&A in our filings with the SEC. The composition of the Compensation Committee satisfies the independence requirements of Nasdaq.

Nominating and Corporate Governance Committee. Our Nominating and Corporate Governance Committee currently consists of Richard M. Johnston (Chair), Mark A. Collar, Donald C. Harrison, M.D. and Elizabeth D. Krell, Ph.D. The Nominating and Corporate Governance Committee is responsible for reviewing and making recommendations on the composition of our Board and selection of directors, periodically assessing the functioning of our Board and its committees, overseeing certain regulatory compliance issues in connection with our Corporate Integrity Agreement between the Office of Inspector General of the Department of Health and Human Services, and making recommendations to our Board regarding corporate governance matters and practices. The composition of the Nominating and Corporate Governance Committee satisfies the independence requirements of Nasdaq.

Meetings of the Board and Committees of the Board

During 2010, the Board held six meetings and took action in writing on one occasion. The Audit Committee held eight meetings, the Compensation Committee held five meetings and took action in writing on one occasion and the Nominating and Corporate Governance Committee held five meetings.

Our directors are strongly encouraged to attend the Company’s annual meeting of stockholders. All of our directors attended the 2010 Annual Meeting, as well as at least 75% of the aggregate of all Board meetings and all meetings of Committees on which such directors served during 2010.

Consideration of Director Nominees

Stockholder Nominations and Recommendations. As described above in the Question and Answer section under “What is the deadline to propose actions for consideration at next year’s meeting of stockholders or to nominate individuals to serve as directors?,” our Bylaws set forth the procedure for the proper submission of stockholder nominations for membership on our Board. In addition, the Nominating and Corporate Governance Committee may consider properly submitted stockholder recommendations (as opposed to formal nominations) for candidates for membership on the Board. A stockholder may make such a recommendation by submitting the following information to our Secretary at 6217 Centre Park Drive, West Chester, Ohio 45069: the candidate’s name, age, home and business contact information, principal occupation or employment, the class and number of shares of AtriCure stock beneficially owned, information regarding any relationships, arrangements or understandings between the candidate and AtriCure, and any other information relating to the candidate that is required to be disclosed in the solicitation of proxies for election of directors or is otherwise required, including the candidate’s written consent to being named in the proxy statement, if any, as a nominee and to serving as a director if elected.

Director Qualifications. Members of our Board should have the highest professional and personal ethics and values, and conduct themselves consistent with our Code of Business Conduct and Ethics. Other than an age limit of 75 for election of directors set by our Board, the Nominating and Corporate Governance Committee has not established specific minimum qualifications for director candidates. The Board determined to waive the age limit for Richard M. Johnston and Donald C. Harrison, M.D., with respect to election at the meeting because of the Board’s determination that their knowledge and insight continue to benefit the Board and enhance overall Board effectiveness. The Committee believes that candidates and nominees must reflect a Board that is comprised of directors who (i) are predominantly independent, (ii) are of high integrity, (iii) have qualifications that will increase overall Board effectiveness, and (iv) meet other requirements as may be required by applicable rules, such as financial literacy or financial expertise with respect to audit committee members.

Identifying and Evaluating Director Nominees. Typically new candidates for nomination to our Board are suggested by existing directors or by our executive officers. However, candidates may also come to the attention of our Board through professional search firms, stockholders, or other persons. The Nominating and Corporate Governance Committee will carefully review the qualifications of any candidates who have been properly brought to its attention. Such review may, in the Committee's discretion, include a review solely of information provided to the Committee or may also include discussions with persons familiar with the candidate, an interview with the candidate or other actions that the Committee deems proper. The Committee will consider the suitability of each candidate, including the current members of our Board, in light of the current size and composition of the Board. In evaluating the qualifications of the candidates, the Committee considers many factors including issues of character, judgment, independence, age, expertise, diversity of experience, length of service, other commitments and the like. The Committee evaluates such factors, among others, and does not assign any particular weighting or priority to any of these factors nor does the Committee have a formal policy with respect to diversity. Candidates properly recommended by stockholders are evaluated by the independent directors using the same criteria as other candidates.

Director Compensation

Effective January 1, 2011, we pay an annual retainer, quarterly in advance, to our non-employee directors of \$25,000. We also pay an additional fee of \$25,000 to the Chairman of the Board, \$12,500 to the Chairperson of the Audit Committee, \$10,000 to the Chairperson of the Compensation Committee and \$7,500 to the Chairperson of the Nominating and Corporate Governance Committee. Non-employee directors also receive a fee for each Board meeting of \$1,500 for in-person attendance and \$1,000 for participation by telephone and a fee for each Committee meeting of \$1,000 for in-person attendance and \$500 for participation by telephone.

Upon joining our Board, each non-employee director receives an initial grant of 50,000 stock options which vest one-fourth on each of the first four anniversaries of the date of the grant. Annually, concurrent with each annual meeting of stockholders, each of our non-employee directors who has been a director for at least six months receives 10,000 stock options, which vest one-third on the earlier of each anniversary of the date of the grant or the annual meeting of stockholders that year. Options granted to non-employee directors have a term of 10 years and an exercise price equal to the fair market value on the date of grant.

Director Compensation Table

The following table summarizes compensation earned by our non-employee directors for the year ended December 31, 2010.

<u>Name</u>	<u>Fees Earned or Paid in Cash (\$)⁽¹⁾</u>	<u>Stock Awards (\$)⁽¹⁾</u>	<u>Option Awards (\$)⁽¹⁾</u>	<u>Total (\$)</u>
Richard M. Johnston	63,200	—	33,131	96,331
Mark A. Collar	29,850	—	33,131	62,981
Donald C. Harrison, M.D.	32,450	—	33,131	65,581
Michael D. Hooven	26,500	—	33,131	59,631
Elizabeth D. Krell, Ph.D.	28,450	—	33,131	61,581
Mark R. Lanning	44,250	—	33,131	77,381
Karen P. Robards	39,250	—	33,131	72,381

⁽¹⁾ Amounts in the option awards column represent the aggregate grant date fair value of option awards computed, as of each award date, in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification 718, "Compensation—Stock Compensation" (ASC 718). No stock awards were granted during 2010.

Corporate Governance Guidelines

The Board has adopted Corporate Governance Guidelines to promote the effective functioning of the Board and its Committees, to promote the interests of stockholders and to create a common set of expectations as to how the Board, its Committees, individual directors and management should perform their respective functions. The Board believes that ethics and integrity cannot be legislated or mandated by directive or policy and that the ethics, character, integrity and values of our directors and management remain a critical safeguard in quality corporate governance. The Corporate Governance Guidelines establish the practices the Board will follow with respect to, among other practices, board composition and selection of board nominees, director responsibilities, chief executive officer evaluation, management development and succession planning, director compensation, board committees and annual board and committee performance evaluations. A copy of the Corporate Governance Guidelines is available on our website at www.atricure.com under "Investor Relations—Corporate Governance."

Code of Business Conduct and Ethics

AtriCure is committed to maintaining the highest standards of business conduct and ethics. Our Code of Business Conduct and Ethics reflects our values and the business practices and principles of behavior that support this commitment. Our Code of Business Conduct and Ethics is an integral part of our business conduct compliance program and embodies our commitment to conduct operations in accordance with the highest legal and ethical standards. The Code of Business Conduct and Ethics applies to all of our officers, directors and employees and is supplemented by an additional Code of Ethics which is applicable to our Chief Executive Officer, our Senior Financial Officers and other financial personnel. Each officer, director and employee is responsible for understanding and complying with the Code of Business Conduct and Ethics. Each Code is available on our website at www.atricure.com under "Investor Relations—Corporate Governance." We will post any amendments to either Code, as well as any waivers that are required to be disclosed by the rules of the SEC or Nasdaq, on our website.

We have also adopted and implemented voluntary standards established by the Advanced Medical Technology Association (AdvaMed), a United States trade association for medical device manufacturers, governing interactions between medical device manufacturers and healthcare professionals known as the AdvaMed Code of Ethics on Interactions with Health Care Professionals (AdvaMed Code). These standards are intended to ensure that such interactions are transparent and comply with applicable laws, regulations and government guidance. The standards address interactions related to sales and marketing practices, research and development, product training and education, grants and charitable contributions, support of third-party educational conferences, and consulting arrangements.

Compensation Committee Interlocks and Insider Participation

During 2010 and through the date of this proxy statement, none of the members of our Compensation Committee was or is an officer or employee of the Company, has or had any relationship with the Company requiring disclosure under Item 404 of Regulation S-K and no executive officer of the Company served or serves on the compensation committee or board of any company that employed or employs any member of the Company's Compensation Committee or Board of Directors.

Certain Relationships and Related Party Transactions

Our Audit Committee charter provides that the Audit Committee will review and discuss with management potential transactions with related parties. Related party transactions requiring Audit Committee approval include transactions that are significant in size and transactions that involve terms or aspects that differ from those which would be entered into between independent parties.

Effective October 1, 2010, the Company promoted David J. Drachman, Jr., the son of the Company's President and Chief Executive Officer, to the position of Regional Sales Manager. In connection with his employment, Mr. Drachman, Jr. received annual compensation of \$89,682 in 2009 and \$168,668 in 2010.

Communications with the Board of Directors

Stockholders are invited to communicate to the Board or its committees by writing to: AtriCure, Inc., Chairman of the Board of Directors or the Chair of a Board committee, 6217 Centre Park Drive, West Chester, Ohio 45069. All such stockholder communications will be forwarded to the specific director or directors to whom the communications are addressed.

Board Leadership Structure

The Company has separated the Chief Executive Officer and Board Chairman positions. Mr. Johnston serves as our Chairman of the Board and presides over Board meetings and provides the Company with the benefit of his strategic and creative vision, an appreciation for and understanding of the risks associated with the Company's business and an intimate knowledge of the Company's technologies and the medical device industry. Mr. Drachman serves as our Chief Executive Officer and provides the Company with the benefit of his extensive knowledge of the Company's operations, an understanding of the day-to-day challenges faced by companies in the medical device industry and his business and financial know-how.

The Board currently believes that, at this time, based on the skills and responsibilities of the various Board members and management, and in light of the general economic, business and competitive environment facing the Company, the separation of the Chairman and Chief Executive Officer roles enhances appropriate oversight of management by the Board, Board independence, the accountability to our stockholders by the Board and our overall leadership structure. Furthermore, the Board believes that maintaining separation of the Chairman function from that of the Chief Executive Officer allows the Chief Executive Officer to properly focus on managing the business, rather than requiring a significant portion of his efforts to be spent on also overseeing Board matters.

Board's Role in Risk Oversight

The Board maintains oversight responsibility for the management of the Company's risks and closely monitors the information it receives from management to provide oversight and guidance to our management team concerning the assessment and management of risk. The Board approves the Company's high level goals, strategies and policies to set the tone and direction for appropriate levels of risk taking within the business.

The Board has delegated oversight for matters involving certain specific areas of risk exposure to its committees. Each committee reports to the Board of Directors at regularly scheduled Board meetings, and more frequently if appropriate, with respect to the matters and risks for which the committee provides oversight.

The Audit Committee oversees the integrity of our financial statements, risks related to our financial reporting process and internal controls, the independent auditors' qualifications, independence and performance, and the Company's corporate finance matters. The role of the Audit Committee includes receiving, at least annually, a discussion of the major risk exposures identified by senior management, the key strategic plan assumptions considered during the assessment and steps implemented to monitor and mitigate such exposures on an ongoing basis.

Our Compensation Committee is responsible primarily for the design and oversight of the Company's executive compensation policies, plans and practices. A key objective of the Compensation Committee is to ensure that the Company's overall executive compensation program appropriately links pay to performance and aligns the interests of the Company's executives with its stockholders.

The Nominating and Corporate Governance Committee oversees risks related to our corporate governance, including Board and director performance, director succession and the Company's Corporate Governance Guidelines and other governance documents. The Nominating and Corporate Governance Committee is also responsible for conducting a review of the Company's compliance program in connection with the Corporate Integrity Agreement between the Office of Inspector General of the U.S. Department of Health and Human Services and the Company.

PROPOSAL TWO—RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee of the Board has selected Deloitte & Touche LLP as the independent registered public accounting firm to perform the audit of the Company's financial statements for the year ending December 31, 2011. Deloitte & Touche LLP has audited the Company's financial statements since 2002.

The Board is asking the stockholders to ratify the selection of Deloitte & Touche LLP as the Company's independent registered public accounting firm for 2011. Although not required by law, the rules of Nasdaq, or the Company's Bylaws, the Board is submitting the selection of Deloitte & Touche LLP to the stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the selection, the Audit Committee may reconsider whether it should appoint another independent registered public accounting firm. Even if the selection is ratified, the Audit Committee, in its discretion, may select a different registered public accounting firm at any time during the year if it determines that such a change would be in the best interests of the Company and its stockholders.

Representatives of Deloitte & Touche LLP are expected to be present at the meeting. They will have an opportunity to make a statement if they desire to do so and will be available to respond to appropriate questions from the Company's stockholders.

Board of Directors' Recommendation

THE BOARD RECOMMENDS THAT YOU VOTE FOR THE RATIFICATION OF THE SELECTION OF DELOITTE & TOUCHE LLP AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR 2011.

Audit and Non-Audit Services

The Audit Committee is directly responsible for the appointment, compensation and oversight of the Company's independent auditor. In addition to retaining Deloitte & Touche LLP to audit the Company's financial statements for 2010, the Audit Committee retained Deloitte & Touche LLP to provide audit-related services and certain other services in 2010. The Audit Committee understands the need for Deloitte & Touche LLP to maintain objectivity and independence in its audits of the Company's financial statements. The Audit Committee has reviewed all non-audit services provided by Deloitte & Touche LLP in 2010 and has concluded that the provision of such services was compatible with maintaining Deloitte & Touche LLP's independence in the conduct of its auditing functions.

The aggregate fees billed or to be billed by Deloitte & Touche LLP for audit services provided to the Company for 2010 and 2009 and billed related to other services provided during 2010 and 2009 were as follows:

<u>Service Category</u>	<u>2010</u>	<u>2009</u>
Audit Fees	\$369,736	\$342,000
Audit-Related Fees	2,482	1,145
Tax Fees	—	—
All Other Fees	—	—
Total	<u>\$372,218</u>	<u>\$343,145</u>

In the above table, in accordance with the SEC's definitions and rules, "audit fees" are fees for professional services and reimbursement for out of pocket expenses for the audit of a company's financial statements, and for services that are normally provided by the accountant in connection with statutory and regulatory filings or engagements; "audit-related fees" are fees for assurance and related services that are reasonably related to the performance of the audit or review of a company's financial statements; "tax fees" are fees for tax compliance, tax advice and tax planning; and "all other fees" are fees for any services not included in the first three categories.

Pre-Approval Policies and Procedures

To help ensure the independence of our independent registered public accounting firm, all audit and permitted non-audit services, including the fees and terms thereof, to be performed by our independent registered public accounting firm must be approved in advance by the Audit Committee, as a Committee or the Committee may delegate to one or more of its members the authority to grant the required approvals.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information relating to the beneficial ownership, calculated in accordance with SEC rules, of AtriCure common stock as of April 1, 2011 by each of our executive officers named in the Summary Compensation Table set forth below, each of our directors, all of our directors and executive officers as a group and each stockholder known by us to own beneficially more than 5% of our common stock.

Other than with respect to executive officers and directors of the Company or as otherwise provided below, the information provided below has been obtained by such beneficial owner's most recent Schedule 13G filed with the SEC.

<u>Beneficial Owner</u>	<u>Beneficial Ownership</u>		
	<u>Shares</u>	<u>Options Exercisable Within 60 Days</u>	<u>Percent of Class</u>
Holders of More Than 5%			
U.S. Venture Partners ⁽¹⁾ 2735 Sand Hill Road Menlo Park, CA 94025	2,252,745	—	14.0%
Discovery Group ⁽²⁾ 191 N. Wacker Drive, Suite 1685 Chicago, IL 60606	1,877,356	—	11.7%
Wasatch Advisors, Inc. ⁽³⁾ 150 Social Hall Avenue Salt Lake City, UT 84111	1,097,267	—	6.8%
Camden Partners ⁽⁴⁾ 500 East Pratt Street, Suite 1200 Baltimore, MD 21202	931,790	—	5.8%
David J. Drachman ⁽⁵⁾ 6217 Centre Park Dr. West Chester, OH 45069	365,692	493,242	5.2%
Michael D. Hooven ⁽⁶⁾ 7778 Bennington Dr. Cincinnati, OH 45241	781,633	30,001	5.0%
Named Executive Officers			
David J. Drachman ⁽⁵⁾	365,692	493,242	5.2%
Julie A. Piton	119,692	139,999	1.6%
Salvatore Privitera	83,681	109,062	1.2%
Stewart W. Strong	44,119	79,812	*
James L. Lucky	62,362	79,062	*
Directors and Nominees			
Mark A. Collar	13,262	47,501	*
Donald C. Harrison, M.D.	198,741	80,001	1.7%
Michael D. Hooven ⁽⁶⁾	781,633	30,001	5.0%
Richard M. Johnston	—	80,001	*
Elizabeth D. Krell, Ph.D.	5,162	80,001	*
Mark R. Lanning	13,994	80,001	*
Karen P. Robards	294,628	80,001	2.3%
All executive officers and directors as a group (13 persons)	2,028,493	1,456,496	19.9%

* Indicates ownership of less than 1%.

- (1) Consists of 2,202,444 shares held by U.S. Venture Partners VIII, L.P.; 17,031 shares held by USVP VIII Affiliates Fund, L.P.; 21,653 shares held by USVP Entrepreneur Partners VIII-A, L.P. and 11,617 shares held by USVP Entrepreneur Partners VIII-B, L.P. Presidio Management Group VIII, LLC is the general partner of U.S. Venture Partners VIII, L.P., USVP VIII Affiliates Fund, L.P., USVP Entrepreneur Partners VIII-A, L.P. and USVP Entrepreneur Partners VIII-B, L.P. The managing members of Presidio Management Group VIII, LLC are Timothy Connors, Irwin Federman, Winston Fu, Steven Krausz, David Liddle, Jonathan Root, Christopher Rust and Philip Young and each may be deemed to share voting and investment power with respect to the securities held by these entities and disclaims beneficial ownership of the securities held by these entities, except as to his pecuniary interest therein.
- (2) This information is based on the Schedule 13D filed with the SEC on September 27, 2010 and the Forms 4 filed with the SEC on March 22 and 29, 2011. These securities held by Discovery Group I, LLC, Discovery Equity Partners, L.P. and another private investment partnership (Pleiades Investment Partners – D, L.P.) over whose shares Discovery Group has sole discretionary authority. The managing members of Discovery Group I, LLC are Daniel J. Donoghue and Michael R. Murphy, and each may be deemed to share voting and investment power with respect to the securities held by these entities and disclaims beneficial ownership of the securities held by these entities, except as to his pecuniary interest therein.
- (3) This information is based on the Schedule 13G filed with the SEC on February 14, 2011.
- (4) Consists of 868,605 shares held by Camden Partners Strategic Fund II-A, L.P., 51,527 shares held by Camden Partners Strategic Fund II-B, L.P. and 11,658 shares held by Camden Partners Holdings, LLC of which Mr. Johnston served as a Managing Member until December 31, 2010. Camden Partners Strategic II, LLC is the general partner of Camden Partners Strategic Fund II-A, L.P. and Camden Partners Strategic Fund II-B, L.P. David L. Warnock, Richard M. Berkeley, and Donald W. Hughes each may be deemed to share voting and investment power with respect to the securities held by these entities and disclaims beneficial ownership of the securities held by these entities, except as to his pecuniary interest therein.
- (5) Consists of 365,692 shares held directly by Mr. Drachman and 493,242 shares underlying options exercisable within 60 days.
- (6) Includes 334,211 shares held by a trust for the benefit of Mr. Hooven (the Michael D. Hooven 2004 Trust FBO Michael); 93,669 shares held by Mr. Hooven; 334,211 shares held by a trust for the benefit of Susan Spies, Mr. Hooven's wife (the Michael D. Hooven 2004 Trust FBO Susan Spies); 1,121 shares held by Mr. Hooven's son; and 18,421 shares held by a trust for the benefit of Mr. Hooven's son (the Susan Spies 2004 Children's Trust). Mr. Hooven serves as the trustee of the trust for the benefit of himself and for the Susan Spies 2004 Children's Trust. Mr. Hooven may be deemed to share voting and investment power with respect to the shares held by the trust for the benefit of his wife, the shares held by his wife and the shares held by the Susan Spies 2004 Children's Trust and the shares held by his son, and Mr. Hooven disclaims beneficial ownership of these shares, except as to his pecuniary interest therein. Ms. Spies may be deemed to share voting and investment power with respect to the shares held by the trust for the benefit of Mr. Hooven, and the shares held by the Susan Spies 2004 Children's Trust, and she disclaims beneficial ownership of these shares, except as to her pecuniary interest therein.

Ownership Guidelines

Consistent with its compensation philosophy and the principle of aligning the interests of management and directors of the Company with the interests of its stockholders, in March 2011 the Board of Directors implemented stock ownership guidelines for "Specified Officers" (defined in the guidelines as those officers required to file beneficial ownership reports with the SEC) and non-employee directors. Under the guidelines, the Company's Chief Executive Officer is required to own an amount of our common stock which is equal to or exceeds three times such Chief Executive Officer's annual base salary; Specified Officers other than the Chief Executive Officer are required to own an amount of our common stock which is equal to or exceeds such officer's annual base salary. Also under the guidelines, each of the Company's non-employee directors is required to own an amount of Company common stock which is equal to or exceeds three times such non

employee director's annual retainer. Generally, persons subject to the guidelines are required to achieve the applicable guideline not later than March 2014. Notwithstanding this phase-in period, most persons subject to these guidelines have met their ownership target.

Holding Period Requirements

In 2011 the Compensation Committee recommended, and the Board of Directors approved, a policy which institutes a mandatory holding period for long-term incentive awards. The policy requires "Specified Officers" (defined in the policy as those officers required to file beneficial ownership reports with the SEC) to retain 50% of the net after-tax shares that are earned pursuant to long-term incentive awards, including stock option and restricted stock awards, until the earlier of (i) the end of a two-year period commencing on the date any shares earned under the award are issued and (ii) the executive's termination of employment. The mandatory holding period applies to long-term incentive awards granted on or after January 1, 2012.

MANAGEMENT

Our directors, nominees for director and executive officers are set forth below. Information regarding our directors and director nominees is set forth above under “Proposal One—Election of Directors—Biographical Information of Directors and Director Nominees.”

<u>Name</u>	<u>Age</u>	<u>Position</u>
Richard M. Johnston	76	Chairman of the Board
Mark A. Collar	58	Director
David J. Drachman	52	President, Chief Executive Officer and Director
Donald C. Harrison, M.D.	77	Director
Michael D. Hooven	55	Director
Elizabeth D. Krell, Ph.D.	62	Director
Mark R. Lanning, C.P.A.	56	Director
Karen P. Robards	61	Director
Julie A. Piton, C.P.A.	39	Vice President, Finance and Administration and Chief Financial Officer
James L. Lucky	49	Vice President, Regulatory Affairs and Quality Assurance
Frederick C. Preiss	60	Vice President, Operations
Salvatore Privitera	44	Vice President, Engineering and Product Development
Stewart W. Strong	44	Vice President, U.S. Sales

Julie A. Piton, C.P.A. has served as our Vice President, Finance and Administration and Chief Financial Officer since January 2007. From 1999 to 2007, Ms. Piton held various financial executive positions with School Specialty, Inc., a publicly-held supplier, publisher and manufacturer of educational products to the pre K-12 market, including Vice President of Finance and Investor Relations, Corporate Controller, Vice President Finance and divisional Chief Financial Officer. Prior to joining School Specialty, Ms. Piton held various financial management positions with Sensient Technologies and Schneider National and was a Senior Auditor for Deloitte & Touche LLP. Ms. Piton received her B.A. and her Masters in Business Administration from the University of Wisconsin.

James L. Lucky has served as our Vice President, Regulatory Affairs and Quality Assurance since February 2008, having previously served as our Vice President, Quality Assurance and Healthcare Compliance since January 2004. From 1997 to 2004, Mr. Lucky served as Vice President of Quality Assurance and Regulatory Affairs for the medical segment of Teleflex, Inc., a publicly-held designer and manufacturer of specialty engineered devices for various industries. Prior to that position, Mr. Lucky held a number of quality assurance positions in the medical device industry, including at Ethicon Endo-Surgery, Inc., Bristol-Myers Squibb Company and Parker Hannifin Corp. Mr. Lucky received his B.S. from Western Michigan University, his M.S. from North Carolina State University and his Masters in Business Administration from Duke University.

Frederick C. Preiss has served as our Vice President, Operations since May 2005. From 2002 to 2005, Mr. Preiss served as Vice President of Operations, OEM of Teleflex Medical, a medical device manufacturer and subsidiary of Teleflex, Inc., a publicly-held designer and manufacturer of specialty engineered devices for various industries. From 1998 to 2002, Mr. Preiss served as Vice President of Operations of Regeneration Technologies, a tissue-based biotechnology company. Prior thereto, Mr. Preiss held a number of responsible positions relating to operations, manufacturing, engineering and purchasing at various companies, including Wright Medical Technology, United States Surgical Corporation and Cyromedics, Inc. Mr. Preiss received his B.S. from the University of New Haven.

Salvatore Privitera has served as our Vice President, Engineering and Product Development since May 2009 and previously served as Vice President, Business Development and Research from May 2007 to May 2009 and as Vice President, Product Development from October 2003 to May 2007 and in the same capacity during

2000 and 2001. From 2001 to 2003, Mr. Privitera served as Director of Product Development for Ethicon Endo-Surgery, a developer and manufacturer of minimally invasive surgical instruments. Mr. Privitera has over 20 years of medical product development experience and has been associated with the release of over 50 medical devices in the fields of cardiac surgery, laparoscopic general surgery, breast biopsy and sedation. He is a named inventor on over 35 issued and filed U.S. patents. Mr. Privitera is an adjunct professor at the University of Cincinnati. He received his B.S. from the University of Buffalo, his Masters in Business Administration from Xavier University and is pursuing his J.D. from Chase College of Law.

Stewart W. Strong has served as our Vice President, United States Sales since June 2007, having previously served as Vice President, Eastern United States Sales, Northeast Area Sales Director and Regional Sales Manager since joining AtriCure in October 2003. Mr. Strong has over 10 years of cardiac and general surgery sales experience. Prior to joining AtriCure, Mr. Strong held sales positions with the Heart Valve Division of Medtronic, Inc. and Johnson and Johnson's Ethicon Endo-Surgery division. Mr. Strong received his B.A. from the University of Connecticut.

COMPLIANCE WITH SECTION 16(a) FILING REQUIREMENTS

Section 16(a) of the Exchange Act requires our directors, executive officers and beneficial owners of more than 10% of our common stock to file with the SEC reports regarding their ownership and changes in ownership of our common stock. Such persons are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file.

Based solely on our examination of the copies of such forms received by us, or written representations from reporting persons, that no Forms 3, 4 or 5 were required of such persons, we believe that during our year ended December 31, 2010, our directors, executive officers and 10% stockholders complied with all Section 16(a) filing requirements except that each of two transactions, wherein Mr. Johnston transferred shares of our common stock to Camden Partners, was reported late each on a Form 4.

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

Management has the primary responsibility for maintaining effective internal control over financial reporting and for preparing AtriCure's consolidated financial statements. AtriCure's independent registered public accounting firm is responsible for performing independent audits of AtriCure's consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). The Audit Committee's responsibilities include monitoring and oversight of corporate accounting and financial reporting processes on behalf of the Board of Directors. In fulfilling its responsibilities, the Audit Committee reviewed with management the audited financial statements included in AtriCure's Annual Report on Form 10-K, including a discussion of significant accounting principles, the reasonableness of significant estimates and judgments made in preparing the financial statements and the clarity of disclosures in the financial statements. In addition, the Audit Committee discussed with the Chief Executive Officer and the Chief Financial Officer of AtriCure the certifications required to be given by such officers in connection with AtriCure's Annual Report on Form 10-K pursuant to the Sarbanes-Oxley Act of 2002 and the Securities and Exchange Commission rules adopted thereunder, including the subject matter of such certifications and the procedures followed by such officers and other management in connection with giving such certifications. The Audit Committee's responsibilities are set forth in a written charter, a copy of which is available on our website at www.atricure.com under "Investor Relations—Corporate Governance."

The Audit Committee is responsible for reviewing, approving and managing the engagement of AtriCure's independent registered public accounting firm, including the scope, extent and procedures of the annual audit and compensation to be paid therefore, and all other matters the Audit Committee deems appropriate, including the independent registered public accounting firm's accountability to the Board of Directors and the Audit Committee. The Audit Committee reviewed with AtriCure's independent registered public accounting firm, which is responsible for expressing an opinion on the conformity, in all material respects, of AtriCure's financial statements with generally accepted accounting principles, its judgments as to the acceptability as well as the appropriateness of AtriCure's application of accounting principles and such other matters as are required to be discussed with the independent registered public accounting firm by the statement on Auditing Standards No. 61, as amended (AICPA, Professional Standards, Vol. 1. AU Section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T. In addition, the Audit Committee has received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence, has discussed with AtriCure's independent registered public accounting firm its independence from management and AtriCure and has considered the compatibility of non-audit services with the independence of AtriCure's independent registered public accounting firm.

The Audit Committee discussed with AtriCure's independent registered public accounting firm the overall scope and plans for its audit. The Audit Committee meets with the independent registered public accounting firm to discuss the results of its examinations, its evaluation of the effectiveness of AtriCure's internal control over financial reporting and the overall quality of AtriCure's financial reporting. The Audit Committee held eight meetings during the year ended December 31, 2010.

In reliance on the reviews and discussions referred to above, the Audit Committee recommended to the Board of Directors that the audited financial statements be included in AtriCure's Annual Report on Form 10-K for the year ended December 31, 2010 for filing with the Securities and Exchange Commission. The Audit Committee has also selected, subject to stockholder ratification, Deloitte & Touche LLP as AtriCure's independent registered public accounting firm for the year ending December 31, 2011.

Submitted by the following members of the Audit Committee:

AUDIT COMMITTEE

Mark R. Lanning, Chair
Donald C. Harrison, M.D.
Karen P. Robards

EXECUTIVE COMPENSATION

Report of the Compensation Committee of the Board of Directors

The Compensation Committee has reviewed and discussed the following Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management and based on such review and discussions, the Compensation Committee has recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement.

Submitted by the following members of the Compensation Committee:

COMPENSATION COMMITTEE

Karen P. Robards, Chair
Richard M. Johnston
Mark R. Lanning

Compensation Discussion and Analysis

Compensation Philosophy and Objectives

Our compensation philosophy is rooted in a pay for performance approach that is designed to strongly link executive officer compensation to our performance. Executive incentive compensation is tied to measurable results intended to create long-term value for our stockholders. Our executive compensation program is designed to promote the following objectives:

- To attract, motivate and retain talented executives;
- To compensate executives based upon the value of their individual and collective contributions to achieving corporate goals and objectives; and
- To align the interests of our executives with those of our stockholders.

Our executive compensation program provides for base salaries that reflect the following primary factors: level of responsibility, individual performance, internal fairness and external competitiveness. Additionally, the program provides both for annual incentive awards that are payable upon our achievement of annual financial and management objectives, as well as long-term equity incentives that are intended to align and strengthen the mutuality of interest between management, other key employees and our stockholders.

Executive Compensation Program and Process

The Compensation Committee oversees and administers our executive compensation policies and plans. The Compensation Committee determines and reports to the Board regarding general recommendations on compensation policies and plans for employees, setting salaries and incentive compensation and approving equity incentive awards for executives. Our management team supports and makes recommendations to the Compensation Committee in fulfilling its responsibilities and gathers information and performs administrative tasks delegated to it by the Compensation Committee. The Compensation Committee performs the same analysis in connection with determining the compensation of Mr. Drachman, our Chief Executive Officer, as it does in determining the compensation of other executive officers. We believe that Mr. Drachman's compensation is fair, competitive and consistent with the Company's corporate results and compensation philosophy.

The Compensation Committee has the authority to engage the services of outside advisors as necessary to meet its responsibilities. The Compensation Committee has utilized the services of Frederic W. Cook & Co., Inc., from time to time, and during 2010 to provide advice regarding 2010 executive compensation.

In determining executive compensation, we evaluate a variety of factors relating to the Company's performance as a whole during the year, including financial performance, product development and regulatory and clinical progress. We also review market data and the individual performance of all key executives.

Recognizing that we compete for talent with other publicly-held medical device companies, some of which have significantly larger resources than us, we seek to provide compensation that is competitive. We review the data for our peer group, but we do not attempt to maintain a certain target percentile with a peer group. The peer group consists of several cardiac-focused medical device companies and other medical device and life sciences companies of similar size, including ABIOMED, Inc., Alphatec Spine, Inc., AngioDynamics, Inc., ATS Medical, Inc., Cardiac Science Corporation, CryoLife, Inc., Endologix, Inc., Hansen Medical, Inc., Micrus Endovascular Corporation, Osteotech, Inc., Replidyne, Inc., Spectranetics, Inc., Stereotaxis, Inc., and Vascular Solutions, Inc. Additionally, we utilize the Top 5 Pay in the Medical Device Industry Report, which summarizes and reports public company data for medical device companies.

Compensation to our executive officers generally consists of the following elements: base salary, annual incentive bonuses, grants of equity awards and generally the same health and welfare benefits package available to all of our employees. We believe this mix of cash and equity compensation and short- and long-term compensation afforded to all of our executives is consistent with our compensation philosophy and furthers our overall compensation objectives by encouraging short- and long-term performance; creating an effective management team which can lead our growth and expansion; and maximizing stockholder value.

The Compensation Committee has reviewed the risk profile of the various elements of our executive compensation program, including the performance objectives and target levels used in connection with incentive awards, and has considered the risks our executive officers might be incentivized to take with respect to such elements. When establishing the mix among these elements, the Compensation Committee is careful not to encourage excessive risk taking, and as a result, the Compensation Committee believes that our executive compensation program does not incentivize the executive officers to engage in business activities or other behavior that would threaten the value of the Company or the investments of its stockholders.

1. *Base Salary.* We pay a base salary to attract talented executives and provide a secure base level of compensation. In determining base salaries, we consider a variety of factors, including the officer's job scope and level of responsibility, as well as individual factors such as experience, skills and performance. We also consider market data relating to compensation for similar positions at other medical device and life science companies and competitive factors in the industry. In addition, we consider relative levels of pay among our officers and recommendations from the Chief Executive Officer.

Salary levels are generally considered annually as part of our annual performance review process, as well as upon a promotion or other change in job responsibility. Salary guidelines are set each year to reflect our industry's competitive environment, balanced by the desire to control the overall cost of salaries and wages. Annual increases in base salary are not guaranteed; however, based on various factors, including those listed above, for 2010, we increased the base salaries of each our executive officers.

2. *Annual Incentive Bonuses.* We pay annual incentive bonuses to management which vary in size depending on the level of achievement of specific operational, financial and strategic goals considered by the Board to be critical in building long-term value for stockholders. In 2008, annual incentive bonuses were paid through the award of restricted stock, whereas annual incentive bonuses earned during 2009 and 2010 were paid in cash. In future years, annual incentive bonuses may be paid in cash, through equity awards or through a combination of both.

Each of our named executive officers, other than Mr. Strong, participates in our bonus program based on company-wide performance goals. Mr. Strong, like other management employees whose primary function is executive sales management, participates in a bonus program where participants receive awards primarily tied to the achievement of sales-related targets, and payments of these incentives are made as frequently as monthly. As Vice President of U.S. Sales, Mr. Strong received incentive compensation of \$186,671 for 2010 under this program based on the Company's U.S. Sales and sales-related targets during 2010.

For other executive officers, annual incentive bonus targets and objectives are designed to advance key strategic initiatives and build stockholder value and, therefore, primarily relate to the achievement of company-wide goals. We believe that company-wide goals help to foster effective cross-functional performance and a culture of collaboration. Annual objectives and targets are developed with guidance from management and approved by the Compensation Committee. Levels of performance are measured and communicated by management to the Compensation Committee and Board of Directors on a regular basis.

For 2010, the determination of the annual incentive targets and objectives was based on specific quantitative measures and qualitative goals. Target bonus amounts were aligned to the achievement of specific objectives within each of the categories outlined below. In each case, participants could earn a maximum bonus of up to 125% of the target bonus aligned with each performance goal, and if the performance goals were not achieved, participants could earn 75% or 0% of certain related target bonus depending on the variance of actual performance from the performance goals.

The Compensation Committee sets annual objectives that the Committee believes will be moderately difficult to attain. The 2010 performance goals were as follows:

(a) Achievement of revenue of at least \$59.2 million (the “Revenue Goal”);

(b) Achievement of adjusted EBITDA (defined for purposes of the bonus program to mean adjusted operating loss plus depreciation, amortization and share-based compensation included in operating loss (excluding specified non-recurring items)) not to exceed a loss of \$100,000 (the “EBITDA Goal”);

(c) Achievement of specific product development introductions including, for example, a specific timeline for the release of the Company’s AtriClip™ system (the “Product Development Goals”); and

(d) Filing of the final clinical module of the PMA for the Company’s ABLATE clinical trial by January 2011 (the “Regulatory and Clinical Goals”).

In accordance with the Company’s executive compensation philosophy and policies described above, and as part of the Chief Executive Officer’s annual compensation and performance review, the Board determined the following for 2010:

<u>Executive Officer</u>	<u>Base Salary (\$)</u>	<u>Target Annual Incentive of Base Salary (%)</u>
David J. Drachman	412,000	50
Julie A. Piton	243,360	40
Salvatore Privitera	192,920	37.5
James L. Lucky	187,460	35
Stewart W. Strong	165,000	—

The Compensation Committee established target award opportunities as a percentage of base salary, performance objectives and relative weightings for 2010. Target opportunity percentages, performance criteria and weightings for 2010 are summarized below.

<u>Executive Officer</u>	<u>2010 Performance Measure Weighting</u>				<u>Target Incentive (%)</u>	<u>Target Incentive (\$)</u>
	<u>Revenue (%)</u>	<u>Adjusted EBITDA (%)</u>	<u>Product Development Goals (%)</u>	<u>Regulatory and Clinical Goals (%)</u>		
David J. Drachman	30	20	20	30	50	206,000
Julie A. Piton	30	20	20	30	40	97,344
Salvatore Privitera	30	20	20	30	37.5	72,345
James L. Lucky	30	20	20	30	35	65,611

For 2010, the Compensation Committee approved an incentive bonus program that would have enabled these executive officers to earn the target and maximum bonuses set forth below as a percentage of their base salaries.

<u>Executive Officer</u>	<u>Percentage of 2010 Base Salary at Threshold Goals (%)</u>	<u>Percentage of 2010 Base Salary at Target Goals (%)</u>	<u>Percentage of 2010 Base Salary at Maximum Goals (%)</u>
David J. Drachman	37.5	50	62.5
Julie A. Piton	30	40	50
Salvatore Privitera	28.125	37.5	46.875
James L. Lucky	26.25	35	43.75

	<u>Threshold</u>	<u>Target</u>	<u>Maximum</u>	<u>Actual</u>	<u>Achieved</u>
Revenue Goal	\$57.2 million	\$59.2 million	\$61.2 million	\$59.0 million	Threshold
EBITDA Goal	Loss of > \$0.1 million to \$0.4 million	Loss of \$0.1 million to earnings of \$0.3 million	Earnings greater than \$0.3 million	\$1.9 million	Maximum

The bonuses also reflected achievement of four specific product development goals at an average of the threshold (75%) level and achievement of the clinical and regulatory goal at the maximum (125%) level.

In aggregate, the participants earned their bonuses at 100% of their targets.

<u>Executive Officer</u>	<u>Percentage of Base Salary Earned (%)</u>	<u>Amount of Award (\$)</u>
David J. Drachman	50	206,000
Julie A. Piton	40	97,344
Salvatore Privitera	37.5	72,345
James L. Lucky	35	65,611

3. *Equity Incentive Awards.* We issue equity awards to our executive officers and employees under our 2005 Equity Incentive Plan to create an opportunity for our executive officers and employees to acquire an equity ownership interest in the Company and thereby motivate and retain executive talent and align employees and executives with the long-term interests of stockholders. The Compensation Committee determined to utilize restricted stock grants and stock option grants for 2010, for grants to our executive officers. The Compensation Committee continually reviews the value and mix of equity awards granted to executive officers in light of equity awards at peer group companies but does not target any specific position with respect to these peer group companies. The Compensation Committee also considers wealth accumulation for executive officers as a factor in making additional equity awards both as to type of award and number of underlying shares.

Share-based incentives are reviewed and approved by the Compensation Committee at committee meetings. Grants of restricted stock normally vest in 25% increments over four years. Stock option grants typically vest 25% on the first anniversary of the grant and the remaining 75% thereafter vests and is exercisable in equal monthly installments on the same day of the month over the following three years. Share-based awards are intended to reflect the employee's and executive's position, responsibility, contributions and performance and to consider each individual's current equity position. We believe that share-based awards will stimulate pride in ownership and motivate employees and executives to commit themselves to our performance and increasing stockholder value.

Each year, the Compensation Committee considers grants for executive officers and employees based on recommendations from the CEO, as well as the factors described above. With respect to newly hired executives,

the size of the initial equity grants are determined based on the individual's position, experience and competitive market information. For employees, a new hire grant will generally be made at the first regularly scheduled meeting of the Compensation Committee following commencement of employment. The exercise price for options equals the fair market value of our common stock on the date of the grant.

Severance and Change of Control Programs

Options granted under our 2001 Stock Option Plan become immediately vested upon a change in control, as defined in such plan. Upon a change in control, equity awards granted under our 2005 Equity Incentive Plan are assumed, or an equivalent option or right substituted by the acquirer. Options outstanding for our executive officers under our 2005 Equity Incentive Plan are subject to accelerated vesting upon a change in control, with 33% of the unvested shares generally vesting upon a change in control and full vesting by the one year anniversary of the change in control. If the acquirer refuses to assume or substitute options outstanding, all options become fully vested upon a change in control. Restricted stock for executive officers vests in full upon a change in control.

We believe that the accelerated vesting provisions help create a competitive compensation package and provide a certain level of assurance to our key employees. In addition, we believe that the accelerated vesting provisions are fair and reasonable when compared with similar arrangements adopted by comparable companies in our industry. The Company has also agreed to provide severance to our Chief Executive Officer and Chief Financial Officer in the event of their involuntary terminations or resignation under certain circumstances pursuant to their respective employment agreements.

Recovery of Prior Incentive Compensation

In the event the Company is required to prepare an accounting restatement due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, the Board of Directors shall require reimbursement to the Company of any performance-based award made to any officer of the Company where: (i) the payment was predicated upon achieving certain financial results that were subsequently the subject of a substantial restatement of Company financial statements filed with the SEC; (ii) the members of the Board of Directors who are considered "independent" for purposes of the listing standards of the Nasdaq Stock Market determine the officer engaged in intentional misconduct that caused or substantially caused the need for the substantial restatement; and (iii) a lower payment would have been made to such officer based upon the restated financial results. In each such instance, the Company will, to the extent practicable, seek to recover from the officer the amount by which any performance-based awards paid to such officer for the relevant period exceeded the lower payment that would have been made based on the restated financial results. This policy shall apply to financial statements for periods ending or after December 31, 2011, and beginning on January 1, 2012, the award agreement or terms and conditions of any performance-based award by the Company to an officer shall include a provision incorporating the requirements of this policy.

Perquisites

We do not generally provide executives with perquisites other than programs made available to all Company employees. Mr. Drachman's employment agreement provides for reimbursement up to \$10,000 annually for incremental term life insurance. Mr. Stewart W. Strong, our Vice President of U.S. Sales, receives an annual car allowance of \$7,200. Further, we have historically provided certain relocation benefits to executives.

The Compensation Committee has adopted a policy, effective January 1, 2012, that officers of the Company will no longer be reimbursed by the Company for personal taxes owed by them resulting from their receipt of perquisites, other than for relocation expenses.

Summary Compensation Table

The following table sets forth summary compensation information for 2010, 2009 and 2008 for our Chief Executive Officer, Chief Financial Officer and each of our three other most highly compensated executive officers who were serving in such capacities as of December 31, 2010. Except as provided below, none of our named executive officers received any other compensation required to be disclosed by law or in excess of 10% of their total annual compensation.

Name and Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$) ⁽¹⁾	Option Awards (\$) ⁽¹⁾	Non-Equity Incentive Plan Compensation (\$) ⁽²⁾	All Other Compensation (\$) ⁽³⁾	Total (\$)
David J. Drachman President and Chief Executive Officer	2010	412,000	—	168,000	397,430	206,000	2,468 ⁽⁴⁾	1,185,898
	2009	400,000	—	268,800	—	151,600	5,007 ⁽⁴⁾	825,407
	2008	400,000	—	292,760	385,168	—	11,334 ⁽⁴⁾	1,089,262
Julie A. Piton Vice President, Finance and Administration and Chief Financial Officer	2010	243,360	—	67,200	162,585	97,344	12	570,501
	2009	234,000	—	201,760	—	82,441	—	518,201
	2008	234,000	—	167,423	72,219	—	5,875	479,517
Salvatore Privitera Vice President, Engineering and Product Development	2010	192,920	—	61,600	151,746	72,345	365	478,976
	2009	182,000	—	120,960	—	57,603	—	360,563
	2008	182,000	—	193,052	72,219	—	3,988	451,259
James L. Lucky Vice President Regulatory Affairs and Quality Assurance	2010	187,460	—	61,600	151,746	65,611	1,516	467,933
	2009	182,000	—	94,080	—	64,121	—	340,201
	2008	182,000	11,533	155,552	72,219	—	6,748	428,052
Stewart W. Strong Vice President, U.S. Sales	2010	165,000	—	33,600	79,486	186,671	1,220 ⁽⁵⁾	465,977
	2009	150,000	—	53,760	—	196,111	7,200 ⁽⁵⁾	407,071
	2008	150,000	—	114,000	72,219	175,669	13,358 ⁽⁵⁾	525,246

⁽¹⁾ Amounts in the stock awards and option awards columns represent the aggregate grant date fair value of performance share awards, restricted stock awards and option awards computed, as of each grant date, in accordance with FASB ASC Topic 718. Additional information about the assumptions that we used when valuing equity awards is set forth in our Annual Report on Form 10-K in Notes 1 and 15 of the Notes to Consolidated Financial Statements. 2008 restricted stock amounts include bonuses paid in restricted stock valued at \$121,760 for Mr. Drachman, \$55,422 for Ms. Piton, \$79,051 for Mr. Privitera and \$41,551 for Mr. Lucky. These grants were made during 2009, but are reflected in 2008 as they related to 2008 performance.

⁽²⁾ Amounts shown represent incentive-based awards earned in 2010, 2009 and 2008 pursuant to monthly, quarterly and/or annual incentive-based award programs.

⁽³⁾ Amounts shown include the matching contributions made under our 401(k) Plan and adjustments made in connection with corrections to 401(k) Plan participant account balances, as the case may be.

⁽⁴⁾ Amounts shown include \$3,449, \$5,007 and \$3,584 in incremental life insurance and related tax gross-up payments paid to Mr. Drachman in 2010, 2009 and 2008, respectively.

⁽⁵⁾ Amounts shown include \$7,200 in car allowance paid to Mr. Strong.

Grants of Plan-Based Awards

The following table sets forth information concerning the annual performance bonuses and the stock option grants in 2010 to the executive officers named in the Summary Compensation Table.

Executive Officer	Grant Date ⁽¹⁾	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards ⁽²⁾			Stock Awards: Number of Shares of Stock or Units (#) ⁽³⁾	Option Awards: Number of Securities Underlying Options (#) ⁽⁴⁾	Exercise or Base Price of Option Awards (\$/sh)	Grant Date Fair Market Value of Option Awards (\$) ⁽⁵⁾
		Threshold (\$)	Target (\$)	Maximum (\$)				
David J. Drachman	2/9/2011	154,500	206,000	257,000	—	—	—	—
	2/17/2010	—	—	—	30,000	—	—	—
	2/17/2010	—	—	—	—	110,000	\$ 5.5975	397,430
Julie A. Piton	2/9/2011	73,008	97,344	121,680	—	—	—	—
	2/17/2010	—	—	—	12,000	—	—	—
	2/17/2010	—	—	—	—	45,000	\$ 5.5975	162,585
Salvatore Privitera	2/9/2011	54,259	72,345	90,431	—	—	—	—
	2/17/2010	—	—	—	11,000	—	—	—
	2/17/2010	—	—	—	—	42,000	\$ 5.5975	151,746
James L. Lucky	2/9/2011	49,208	65,611	82,014	—	—	—	—
	2/17/2010	—	—	—	11,000	—	—	—
	2/17/2010	—	—	—	—	42,000	\$ 5.5975	151,746
Stewart W. Strong	2/17/2010	—	—	—	6,000	—	—	—
	2/27/2010	—	—	—	—	22,000	\$ 5.5975	79,486

⁽¹⁾ The grant date of equity awards is the date on which the Compensation Committee approved the award.

⁽²⁾ Represents estimated bonuses eligible to be earned under our annual cash incentive plan for 2010. The actual awards earned and paid to the named executive officers under these plans is reported in the Non-Equity Incentive Plan Compensation column in the Summary Compensation Table and are discussed further above under the heading "Compensation Discussion and Analysis."

⁽³⁾ Represents restricted stock awards granted under the 2005 Equity Incentive Plan.

⁽⁴⁾ Represents stock options granted under the 2005 Equity Incentive Plan.

⁽⁵⁾ The amounts shown reflect the grant date fair value of option awards computed, as of each grant date, in accordance with FASB ASC Topic 718. Additional information about the assumptions is set forth in our 2010 Annual Report Form 10-K in Notes 1 and 5 of the Notes to Consolidated Financial Statements.

Outstanding Equity Awards at Year-End

The table below sets forth information concerning the number and value of the unexercised stock options, restricted stock awards and performance share awards outstanding at December 31, 2010 for the executive officers named in the Summary Compensation Table. Each of the executive officers was been granted performance shares during 2008. Under the Company's equity award plans, stock option awards have a ten-year term. For our named executive officers, options granted prior to August 6, 2005 (expiration date prior to August 6, 2015) vest 25% on each anniversary of the date of grant. Stock Option awards granted after August 5, 2005 (expiration date after August 5, 2015) vest 25% on the first year anniversary of the grant date and in equal monthly installments on the same day of the month over the remaining three years. Restricted shares generally vest in 25% increments on the first four anniversaries of the grant date and vest in full upon a change of control.

Outstanding Equity Awards at Fiscal Year-End

	Option Awards				Stock Awards		Performance Shares Awards	
	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Price (\$)	Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$) ⁽³⁾	Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (\$) ⁽³⁾
Executive Officer								
David J. Drachman	—	110,000	5.5975	2/17/2020	—	—	—	—
	51,666	28,334	10.10	5/28/2018	—	—	—	—
	52,500	7,500	9.50	6/20/2017	—	—	—	—
	150,000	—	13.53	12/7/2015	—	—	—	—
	315,788	—	1.33	10/14/2012	—	—	—	—
	—	—	—	—	90,000	924,300	—	—
	—	—	—	—	20,000 ⁽¹⁾	205,400	—	—
	—	—	—	—	—	—	10,000 ⁽²⁾	102,700
Julie A. Piton	—	45,000	5.5975	2/17/2020	—	—	—	—
	9,687	5,313	10.10	5/28/2018	—	—	—	—
	13,125	1,875	9.50	6/20/2017	—	—	—	—
	95,833	4,167	12.22	2/8/2017	—	—	—	—
	—	—	—	—	54,000	554,580	—	—
	—	—	—	—	13,000 ⁽¹⁾	133,510	—	—
	—	—	—	—	—	—	7,000 ⁽²⁾	71,890
Salvatore Privitera	—	42,000	5.5975	2/17/2020	—	—	—	—
	9,687	5,313	10.10	5/28/2018	—	—	—	—
	13,125	1,875	9.50	6/20/2017	—	—	—	—
	12,785	1,163	11.38	4/25/2017	—	—	—	—
	10,000	—	13.53	12/7/2015	—	—	—	—
	46,052	—	1.52	10/1/2013	—	—	—	—
	—	—	—	—	38,000	390,260	—	—
	—	—	—	—	13,000 ⁽¹⁾	133,510	—	—
	—	—	—	—	—	—	7,000 ⁽²⁾	71,890
James L. Lucky	—	42,000	5.5975	2/17/2020	—	—	—	—
	9,687	5,313	10.10	5/28/2018	—	—	—	—
	13,125	1,875	9.50	6/20/2017	—	—	—	—
	13,949	—	6.34	9/6/2016	—	—	—	—
	10,000	—	13.53	12/7/2015	—	—	—	—
	6,578	—	12.00	8/5/2015	—	—	—	—
	9,473	—	1.52	1/1/2014	—	—	—	—
	—	—	—	—	32,000	328,640	—	—
	—	—	—	—	13,000 ⁽¹⁾	133,510	—	—
	—	—	—	—	—	—	7,000 ⁽²⁾	71,890
Stewart W. Strong	—	22,000	5.5975	2/17/2020	—	—	—	—
	9,687	5,313	10.10	5/28/2018	—	—	—	—
	13,125	1,875	9.50	6/20/2017	—	—	—	—
	2,000	—	9.70	12/6/2016	—	—	—	—
	29,080	—	6.34	9/6/2016	—	—	—	—
	5,000	—	11.06	2/8/2016	—	—	—	—
	2,631	—	12.00	8/5/2015	—	—	—	—
	3,026	—	11.63	4/6/2015	—	—	—	—
	5,263	—	1.52	10/1/2013	—	—	—	—
	—	—	—	—	18,000	184,860	—	—
	—	—	—	—	13,000 ⁽¹⁾	133,510	—	—
	—	—	—	—	—	—	7,000 ⁽²⁾	71,890

- (1) Represents performance shares awarded based upon achievement of the 2009 Goal (as defined in the underlying grant agreement). The related performance goal was achieved and these shares vested in full on February 9, 2011.
- (2) Represents performance shares awarded subject to achievement of the 2010 Goal (as defined in the underlying grant agreement), which was determined not to have been achieved on February 9, 2011 and the shares were cancelled on that date.
- (3) Based on the December 31, 2010 closing price of our common stock of \$10.27 per share.

Option Exercises and Stock Vested

	Stock Awards	
	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$) ⁽¹⁾
Executive Officer		
David J. Drachman	20,000	128,200
Julie A. Piton	14,000	97,190
Salvatore Privitera	9,000	57,690
James L. Lucky	7,000	44,870
Stewart W. Strong	4,000	25,640

No options were exercised for any named executive officer during 2010.

- (1) Calculated by multiplying the number of shares acquired on vesting by the closing price of AtriCure common stock on the date of vesting.

Change in Control Arrangements

We do not have employment agreements with any of our executive officers, with the exception of David J. Drachman, our President and Chief Executive Officer, and Julie A. Piton, our Vice President Finance and Administration and Chief Financial Officer. The treatment of equity awards and specific provisions of Mr. Drachman's and Ms. Piton's employment agreements are discussed below.

After termination of an executive officer or director following a change of control, he or she may exercise his or her vested options pursuant to the terms of our 2001 Stock Option Plan, our 2005 Equity Incentive Plan and/or the related stock option agreements. Generally, if termination is due to death or disability, the options will remain exercisable for twelve months. In all other cases, the options will generally remain exercisable for 90 days. Restricted stock owned by executive officers and options granted under our 2001 Stock Option Plan vest in full upon a change in control.

Upon a change in control of the Company, potential payments to our named executive officers are consistent with all employees, with the exception of acceleration of vesting of the unvested stock options held by our named executive officers under our 2005 Equity Incentive Plan and the payments that may be due to Mr. Drachman and Ms. Piton under their employment agreements upon termination of employment following the change of control. Generally, options granted under our 2005 Equity Incentive Plan are either replaced with equivalent options of the acquiring entity or, if not so replaced, accelerate in full upon the change of control. However, for officers whose employment continues with the Company or a successor following a change of control, unvested options vest one-third upon the change in control and then generally in full upon completion of twelve months of employment following the change in control event except that if an officer is terminated without "cause" (as defined) or resigns for "good reason" (as defined) within one year after the change in control event, all options will vest in full upon such termination or resignation.

In March 2010, the Company and Mr. Drachman amended his employment agreement. As amended, the employment agreement provides for incremental benefits upon termination, death and a change in control. In the event that we terminate the employment of Mr. Drachman “without cause” or for “total disability,” or if he terminates his employment for “good reason,” each as defined in the agreement, Mr. Drachman is entitled to a severance payment equal to six months of his then base salary, which based on his salary at December 31, 2010, would equal a payment of \$206,000. If such termination occurs “without cause” or for “good reason” within twelve months following a “change of control” (as defined in the agreement), Mr. Drachman is entitled to a severance payment equal to twenty-four months of his then base salary plus an amount equal to his target bonus for the year in which the termination occurred, which severance payment would equal \$1,030,000 based on his base salary at December 31, 2010 and target bonus potential for 2010.

In March 2010, the Company and Ms. Piton amended her employment agreement. As amended, the employment agreement provides incremental benefits upon termination, death and a change in control. In the event that we terminate the employment of Ms. Piton “without cause” or if she terminates her employment for “good reason,” each as defined in the agreement, Ms. Piton is entitled to a severance payment equal to six months of her then base salary which, based on her salary at December 31, 2010, would equal a payment of \$121,680. If such termination occurs within one-year of a change in control, Ms. Piton is entitled to a severance payment equal to eighteen months of her then base salary plus an amount equal to her full bonus potential for the year in which the termination occurred, which severance payment would equal \$462,384 based on her base salary at December 31, 2010 and target bonus potential for 2010.

OTHER MATTERS

We are not aware of any other business to be presented at the meeting. As of the date of this proxy statement, no stockholder had advised us of the intent to present any business at the Annual Meeting. Accordingly, the only business that our Board intends to present is as set forth in this proxy statement.

If any other matter or matters are properly brought before the Annual Meeting or any postponement or adjournment thereof, each properly executed proxy card will be voted in the discretion of the proxies named therein, the proxies will use their discretion to vote on such matters in accordance with their best judgment.

The proxy card used by AtriCure for the annual meeting typically grants authority to management to vote in its discretion on any matters that come before the meeting as to which adequate notice has not been received. In order for a notice to be deemed adequate for the 2011 Annual Meeting, it must be received by March 4, 2012.

By Order of the Board of Directors,

/s/ Julie A. Piton

Julie A. Piton

Vice President, Finance and Administration and Chief Financial Officer

West Chester, Ohio
April 18, 2011

ANNUAL MEETING OF STOCKHOLDERS OF

ATRICURE, INC.

May 18, 2011

IMPORTANT NOTICE REGARDING INTERNET AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING TO BE HELD ON MAY 18, 2011:

You are receiving this communication because you hold shares in the above company, and the materials you should review before you cast your vote are now available.

The proxy statement and annual report to security holders are available at: http://phx.corporate-ir.net/phoenix.zhtml?c=189981&p=proxy.

Please sign, date and mail your proxy card in the envelope provided as soon as possible.

i Please detach along perforated line and mail in the envelope provided. i

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THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF DIRECTORS AND "FOR" PROPOSAL 2. PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE

1. Authority to elect as Directors the following eight (8) nominees.

2. Proposal to ratify the appointment of Deloitte & Touche LLP as independent registered public accounting firm of the Company for the year ending December 31, 2011.

FOR AGAINST ABSTAIN

FOR: [] AGAINST: [] ABSTAIN: []

- FOR ALL NOMINEES
WITHHOLD AUTHORITY FOR ALL NOMINEES
FOR ALL EXCEPT (See instructions below)

- NOMINEES:
MARK A. COLLAR
DAVID J. DRACHMAN
DONALD C. HARRISON, M.D.
MICHAEL D. HOOVEN
RICHARD M. JOHNSTON
ELIZABETH D. KRELL, Ph.D.
MARK R. LANNING
KAREN P. ROBARDS

THIS PROXY WILL BE VOTED AS DIRECTED OR, IF NO CONTRARY DIRECTION IS INDICATED, WILL BE VOTED AS FOLLOWS: (1) FOR THE ELECTION OF THE NOMINATED DIRECTORS; (2) FOR THE RATIFICATION OF THE APPOINTMENT OF DELOITTE & TOUCHE LLP AS INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE YEAR ENDED DECEMBER 31, 2011; AND (3) IN THE DISCRETION OF THE PROXY HOLDERS ON SUCH OTHER MATTERS AS MAY COME BEFORE THE MEETING.

PLEASE SIGN, DATE AND PROMPTLY RETURN THIS PROXY IN THE ENCLOSED RETURN ENVELOPE, WHICH IS POSTAGE PREPAID IF MAILED IN THE UNITED STATES.

INSTRUCTIONS: To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the circle next to each nominee you wish to withhold, as shown here:

I PLAN TO ATTEND THE MEETING []

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

Signature of Stockholder

[Signature box]

Date:

[Date box]

Signature of Stockholder

[Signature box]

Date:

[Date box]

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

ATRICURE, INC.

2011 ANNUAL MEETING OF STOCKHOLDERS

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned stockholder of AtriCure, Inc., a Delaware corporation, hereby acknowledges receipt of the Notice of Annual Meeting of Stockholders and Proxy Statement, each dated April 18, 2011, and hereby appoints Julie A. Piton and David J. Drachman, or either of them, as proxy and attorney-in-fact, with full power of substitution, on behalf and in the name of the undersigned to represent the undersigned at the 2011 Annual Meeting of Stockholders of AtriCure, Inc. to be held on May 18, 2011 at 9:00 a.m. (EDT) at AtriCure's offices located at 6217 Centre Park Drive, West Chester, Ohio 45069, and at any postponement or adjournment thereof, and to vote all shares of common stock which the undersigned would be entitled to vote if then and there personally present, on the matters set forth on the reverse side and in their discretion with respect to such other business as may properly come before such Annual Meeting or at any postponement or adjournment thereof:

THIS PROXY WILL BE VOTED AS RECOMMENDED BY THE BOARD OF DIRECTORS UNLESS A CONTRARY CHOICE IS SPECIFIED.

PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE.

(Continued and to be signed on the reverse side)