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## **AC 2011-2826: AN EVALUATION OF THE PARTICIPATION OF THE CITIZEN ENGINEER**

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# AN EVALUATION OF PARTICIPATION OF THE CITIZEN ENGINEER

**Tom C. Roberts, P.E., FASEE, FNSPE and Ron Gaches, J.D.**  
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## Introduction

In 2004, American Society for Engineering Education (ASEE) President Sherra Kerns, Ph.D. challenged members to imagine an age of the Citizen Engineer – socially conscious engineers engaged in proactively tackling the challenges that face the world today. In her Annual Conference keynote, Kerns asked several questions to stimulate member thinking.<sup>1</sup> How, through ASEE members, could ASEE become a critical player in solving the world’s greatest challenges? For example, how could corporate partners advocate for funding needed for engineering education and research in ways that academia cannot? Where do we begin? Why? How? What do we know? What do we need to learn?

The first reference to the term “Citizen Engineer” the authors can find is from a 2002 IEEE-USA presentation to the Student Professional Awareness Committee.<sup>2</sup> The opening power point slide of the presentation states:

“Being a Citizen Engineer Implies Recognizing and Acting On

- Professional Responsibilities
- Public Responsibilities
- Enlightened Self Interest”

The presentation outlines the value of engineer understanding of and contributions to problem solving, technological complexity, risk, systems engineering, and states that engineers are “ordinary people with typical needs and problems, who hold the right to vote.” Norm Augustine is quoted as saying: “Engineers today seem to be the **stealth profession**, the silent occupation ...If we as engineers are unwilling to responsibly speak out on issues within our realm of expertise, who then will?”

Discussion of the questions posed by Sherra Kerns ensued during the 2004 Annual Conference and a decision was made by several “activist members” to continue the discussion at the 2005 Annual Conference by sponsoring a session.<sup>3</sup> Barbara Waugh, HP University Relations and Government Affairs, led the effort. The 2005 panelists shared experiences in environmental activism to save forests in the Northwest, engaging Latin American governments to attract industry R&D and advance engineering education, and efforts to engage Arizona city, state, & US government agencies in economic and workforce development and industry/cluster partnerships in K-12 and higher education. The final panelist shared legislative workshop curriculum and achievements of the Kansas Society of Professional Engineers (KSPE) working with state government on behalf of engineering and research.

The 2005 panel ended with a summary of lessons learned and questions outstanding from the presentations. Those at the panel session explored next steps for these and other citizen engineers. One action was the decision to evaluate the participation of the citizen engineer. Participation in the political process is one key aspect to being an effective citizen engineer

Since 2006, the authors of this paper have surveyed practicing professionals and conducted workshops at ASEE Midwest Section and KSPE meetings, and, the 2009 Kansas Transportation Conference to encourage participation in the political process. Survey questions were asked to determine practicing professional levels of interest and participation in federal, state, and local issues. The surveys also identified areas where participants might take the time to be involved.

### **Citizen Engineer Survey Development**

The citizen engineer survey was developed for use at the ASEE Midwest Section Conference hosted by the University of Missouri – Kansas City, September 14, 2006.<sup>4</sup> Eleven questions were developed to determine practicing professional levels of interest and participation in federal, state, and local issues. The first three questions required yes / no responses to determine voter registration and participation in the last primary and general elections. The next two questions asked the respondent to rate their overall voting record during the past five years and the extent to which they followed issues impacting their region / state / local level.

The next three questions explored the amount of contact with federal & state senators, representatives, and staff members. The final three questions explored the amount of contact with local officials (county, city, and school board). A ten point Likert scale was used with the rating questions to differentiate between federal, state, and local levels of involvement. At the end of the survey, respondents were asked to identify 1 or 2 areas where they might be more involved in the future. Respondents were also asked to identify actions that ASEE might take to encourage member participation as citizen engineers.

The authors presented a workshop at the section conference on how to engage elected officials to influence legislative issues. The 70+ conference attendees were from Kansas, Nebraska, Missouri, Oklahoma, and Arkansas. Not surprising, most conference attendees chose to attend “more technical” paper sessions. However, the eight attending the “citizen engineer” workshop (including participants from Kansas, Nebraska & Missouri) completed the survey and engaged in spirited discussion. Workshop materials included information on federal/regional/state/local initiatives, summarized barriers to participation, and provided information on actions to take to become an effective citizen engineer.

The 2006 workshop survey and results are shown in Figure 1. Voter registration and participation in the most recent general election was very high (88%). Primary election participation was less (62%). Contact with federal and state officials was low. One person indicated regular contact with state legislators and state school board officials.

Results in Figure 1 show that contact with local (county and city) officials was somewhat higher than that with state officials. Contact with local school board officials was very low. Only one of the eight respondents indicated significant contact with elected officials. At the end of the

2006 survey, respondents identified a focus on STEM education, health care, property taxes & contact with local and state officials as possible future actions.

### **Use of Initial Citizen Engineer Survey Results & KSPE Member Survey**

Following the 2006 section conference, the authors incorporated lessons learned into a KSPE 2007 member survey.<sup>5</sup> A comprehensive 39 question survey was sent electronically to 567 members. Responses from 168 members who completed the survey are summarized in Figure 2. Of particular interest were responses to “Products/Services” questions 20 – 30. Of those surveyed, 95% thought that engineering interests should be represented in state governmental affairs. Legislative contact was “very/extremely important” to 77% of the respondents. 69% agreed that the services of a professional lobbyist were important. 51% perceived that KSPE had “too little” or “none” influence on the Kansas Legislature.

The KSPE member survey results were used during 2007 strategic plan discussions and influenced the development of the 2008 - 2012 action plan.<sup>6</sup> The action plan summary communicated to members is shown in Figure 3. A key part of the plan included “IMPACT THE KANSAS LEGISLATURE & PUBLIC POLICY.” Actions included:

- Develop member & non-member workshops to improve interaction with legislators (i.e., grassroots initiatives, local & state political processes, etc.).
- Determine current member participation and capitalize on those resources to expand member involvement.
- Develop & implement formal & informal interaction with public officials (i.e., say hi, be a resource, lobby, testify).
- Encourage member participation in campaign activities and elect members to political office.

### **Expanded Citizen Engineer Survey**

The authors were / are invited speakers to the 2009, 2010 & 2011 Professional Engineers in Government (PEG) Kansas Transportation Conference luncheons. Based upon recommendations from the KSPE Strategic Plan, the authors decided to survey 2009 PEG luncheon participants. The Kansas Transportation Conference attracts more than 200 attendees annually and most attend the luncheon. Attendees include a wide range of ages (25 – 65+) from a broad cross-section of employers: government (Department of Transportation, state & local governments, universities, etc.) and private sector (large & small AE firms, contractors, suppliers, etc.).

The 2006 citizen engineer survey was updated for use at the 2009 luncheon – the 11 questions and end-of-survey comment requests were left unchanged. One hundred twenty-nine (129) respondents completed surveys during lunch. The 2009 survey and results are shown in Figure 4. All but one respondent was a registered voter. Nearly all participated in the most recent general election. Primary election participation was 12% less. Contact with state officials was higher than with federal officials. However, 42% rated their contact with state officials very low. Sixteen percent of the respondents rated their contact with state and federal officials very high.

Contact with state school board officials was very low. (Please remember that in the early 2000’s Kansas was the epicenter for renewed evolution debates related to K-12 curriculum changes. Science standards were changed to reflect “Intelligent Design” for 2 years before being rescinded in 2005).

The 2009 Transportation Conference survey results showed that contact with local (county and city) officials (30%) was double that with state officials. However, consistent with state percentages, fewer than 10% of the respondents had contact with local school board officials.

In June 2010, the authors co-presented to the KSPE Annual Meeting using similar content to the 2006 ASEE Midwest Section presentation. However, the entire morning of the conference was focused on legislative issues and the final presentation of the morning was target on a call to action for the citizen engineer. Approximately 150 KSPE members attended the conference and 50+ members attended the morning session on the last day. The Citizen Engineer Survey was distributed during the presentation and 41 responded (Figure 5).

The 2010 KSPE Annual Meeting survey results are compared to 2006 and 2009 results in the Tables shown below.

**Table 1: VOTING RECORD**

Question	Number of Responses		2009		2010		2010 Kansans
	Yes	%	Yes	%	Yes	%	
Registered Voter ?	7	88	128	99	40	100	< 80 % ?
Voted in Last Primary ?	5	62	110	85	30	75	~ 33%
Voted in Last General ?	7	88	125	97	39	98	~ 51%

The voting record of citizen engineers is consistently higher than the general population. A discussion with Kansas Secretary of State staff defined the following:<sup>7</sup>

- There were 1.7M registered voters in Kansas, July 2010.
- There are approximately 2.8M people in Kansas – an estimated 2.0M eligible to vote
- In the 2010 primary election (non-senate race) – 33% of registered voters cast a ballot
- In the 2010 general election (non-presidential) – 51% of registered voters cast a ballot

A high percentage of citizen engineers are registered to vote and they vote at nearly twice the rate of the average Kansan. At the same time, respondents know they can improve their voting record and understanding of the issues, particularly in primary elections (Table 2).

**Table 2: PARTICIPATION RATING**

Number of Responses	2006				2009				2010			
	VL (1-3)	%	VH (8-10)	%	VL (1-3)	%	VH (8-10)	%	VL (1-3)	%	VH (8-10)	%
<b>Likert scale statement *</b>												
Rate overall voting record during past 5 years (primary & general)	1	12	5	62	4	3	103	80	1	2	28	68
Rate extent you follow regional/state/local issues	1	12	2	33	2	2	93	73	3	8	18	49

\* where 1 = low, and 10 = high  
 VL = very low, VH = very high

A comparison of citizen engineer contact with federal/state officials and local officials is possible by considering Tables 3 and 4. Interaction with state elected officials was 20% higher than with federal officials but both were very low (only 10% of the respondents had very high contact with federal officials (senators, representatives, and staff). More frequent communication with state officials is not surprising considering that many respondents work for the Kansas Department of Transportation (KDOT) or are in industry working on state and local projects. The 2010 survey results suggest a “bimodal” distribution of “citizen engineer” contact (Figures 6 “More Contact” and Figure 7 “Less Contact”). Analysis of this data continues and will likely result in modifications to the survey planned for the 2011 Transportation Conference.

**Table 3: FED/STATE/SCHOOL BOARD CONTACT**

Number of Responses	2006				2009				2010			
	VL (1-3)	%	VH (8-10)	%	VL (1-3)	%	VH (8-10)	%	VL (1-3)	%	VH (8-10)	%
<b>Likert scale statement *</b>												
Rate contact with Federal Senators, Representatives, staff	5	62	0	0	65	50	21	129	25	61	4	10
Rate contact with State Senators and Representatives	6	75	1	12	54	42	24	129	17	41	13	32
Rate contact with State School Board officials	6	75	1	12	96	75	6	128	31	76	2	5

\* where 1 = low, and 10 = high  
 VL= very low, VH = very high

**Table 4: LOCAL (County/City/School Board) CONTACT**

Number of Responses	2006				2009				2010			
	VL (1-3)	%	VH (8-10)	%	VL (1-3)	%	VH (8-10)	%	VL (1-3)	%	VH (8-10)	%
<b>Likert scale statement *</b>												
Rate contact with elected County officials	3	38	1	12	33	26	39	30	20	49	9	22
Rate contact with elected City officials	3	43	2	28	41	32	40	31	17	41	17	41
Rate contact with local School Board officials	6	75	1	12	79	62	12	9	28	68	7	17

\* where 1 = low, and 10 = high  
 VL= very low, VH = very high

In all surveys, contact with state and local school board officials was very low. At the end of the 2009 and 2010 surveys, respondents identified possible future actions (Tables 5 and 6).

**Table 5: Identify 1-2 areas where you might be more involved (combined 2009 & 2010 responses)**

- More contact with elected officials - 43
- Become more informed on the issues - 8
- Run for office / assist with campaigns - 7

**Table 6: What should ASEE/KSPE do to encourage member action?**

- Keep members informed - 13
- Provide members training & education - 8
- Educate the public on what engineers do - 5
- Conduct more surveys / encourage members to be involved - 5
- Create opportunities for contact with elected officials - 4
- Speak with leadership of firms to promote employee involvement - 2
- Encourage / support members to run for office - 2
- Involve youth / younger engineers - 2

**Workshop Materials**

Workshop materials used in the 2006 and 2010 conferences included information on federal/regional/state/local initiatives, summarized barriers to participation, and provided information on actions to take to become an effective citizen engineer. Survey results indicate that participants found value in the materials (Table 6). However, the authors have not attempted to measure the effectiveness of the materials other than using a Level 1 Kirkpatrick type evaluation.<sup>8</sup>

Implementation of the KSPE Strategic Plan included the establishment of a PAC. A request for funds occurred at each annual conference and at other KSPE events. Funds have been distributed to candidates and reports on election outcomes have been reported to KSPE members.

Participation in Chapter legislative events appears to be increasing but attendance data has not been collected on a regular basis. A recent “Engineering in the Dome” event was hosted at the State Capitol in Topeka, Kansas by KSPE and the American Council of Engineering Companies (ACEC) of Kansas on March 2, 2011. Twenty of the 30 participants had participated in the 2010 workshop and appeared comfortable learning about House/Senate calendars and other legislative details that built on the 2010 workshop content.

While these observations are anecdotal, the authors are using these observations to prepare for a state-wide citizen engineer survey of KSPE members.

## **Conclusions & Recommendations**

Survey results reveal significantly high voter registration and participation in the election process. As citizens – engineers vote! However, the results show limited contact with federal and state legislators and almost no contact with elected state and local school board officials. City and county elected officials received the most contact (but limited to 30 - 40%).

Based on data in the KSPE member survey, civil engineers are the most active in the political process. Other disciplines are much more limited in participation. Faculty are less involved than practicing professionals. Licensed professional engineers have a higher rate of participation than the general population associated with the engineering profession.

Workshop materials are well developed and appear effective. However, the authors recognize the need to implement measures to more fully evaluate workshop effectiveness.

Recommendations for future action include:

- Continue targeted workshops to better educate engineers on actions to take in the political process
- Provide engineers with candidate information and dates/times to meet with elected officials
- Support political action committees
- Identify and assist engineers in running for office
- Encourage engineers to serve on advisory boards
- Partnerships between state professional engineering societies with faculty may well increase participation with those associated with higher education
- Survey 2011 Transportation Conference attendees
- Conduct state-wide citizen engineer survey of KSPE members.

## References

1. Kerns, Sherra, ASEE President, Opening Session Comments, ASEE Annual Conference, 2004.
2. Brantley, Chris, Director, Gov't Relations & Operations, IEEE-USA, March 2, 2002.
3. Waugh, Barbara, et. al., Citizen Engineers: Why and How We Engage City, State and Federal Governments on Behalf of Engineering Education and Research, Proceedings of the 2005 American Society for Engineering Education Annual Conference & Exposition, 2005.
4. ASEE Midwest Section Conference Proceedings, University of Missouri – Kansas City, 2006.
5. Kansas Society of Professional Engineers (KSPE) Member Survey and Results, March, 2007.
6. KSPE Strategic Plan, August, 2007.
7. Kansas Secretary of State office staff, (785) 296-4561, March 10, 2011.
8. Evaluating Training Programs, Donald Kirkpatrick, 1994.

September 14, 2006, ASEE Mid-West Section Conference  
 Kansas City, MO



**CITIZEN ENGINEER SURVEY**

**ASEE Call to Action**

In 2004, ASEE President Sherra Kerns challenged us to imagine an age of the Citizen

Engineer – socially conscious engineers engaged in proactively tackling the challenges that face the world today.

Participation in the political process is one key aspect to being an effective “Citizen Engineer”. Listed below are a few questions to determine practicing professional levels of interest and participation in federal, state, and local issues. Please take 2-3 minutes to answer questions about your current level of involvement as a Citizen Engineer. Please also identify the areas where you might take the time to be involved.

**Total Reporting: 8**

(Please circle your responses [yes / no] or [1 to 10 with 10 the highest] as appropriate)

I am a registered voter. Yes No

# reporting 7 1

I voted in the last PRIMARY election. Yes No

5 3

I voted in the last GENERAL election. Yes No

7 1

Please rate your overall voting record (primary & general elections) during the past 5 years.

1 2 3 4 5 6 7 8 9 10

1 2 1 4

Please rate the extent to which you follow issues impacting your region / state / local level.

1 2 3 4 5 6 7 8 9 10

1 1 2 1 1

**Federal**

Please rate the extent to which you have contact with your Senators / Representatives / Staff Members.

1 2 3 4 5 6 7 8 9 10

3 2 1 2

**State**

Please rate the extent to which you have contact with your Senators / Representatives.

1 2 3 4 5 6 7 8 9 10

3 3 1 1

Please rate the extent to which you have contact with your State School Board officials.

1 2 3 4 5 6 7 8 9 10

5 1 1

**Local (City / County/ School District, etc)**

Please rate the extent to which you have contact with your elected County officials.

1 2 3 4 5 6 7 8 9 10

2 1 1 3 1

Please rate the extent to which you have contact with your elected City officials.

1 2 3 4 5 6 7 8 9 10

3 1 1 2

Please rate the extent to which you have contact with your local School Board officials.

1 2 3 4 5 6 7 8 9 10

6 1 1

1. Please identify 1 or 2 areas where you might be more involved in the future.

Refer to separate page.

2. What should ASEE do to encourage more member action as Citizen Engineers?

Refer to separate page.

**Thank you for your participation!**

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Figure 1: 2006 Midwest Section Citizen Engineer Survey Results

## KSPE 2007 – 2012 Strategic Plan

The 2007 - 2012 KSPE Strategic Plan represents input from hundreds of members through a member survey, strategic planning ad hoc committee, the KSPE Board of Directors and sub-committee / task force members.

Through these actions, KSPE has re-visited its 1993 strategic plan, reviewed its general purpose, and is "hitting the reset button" on the KSPE organization in terms of its general vision, mission, purpose, and scope.

### NSPE MISSION STATEMENT

NSPE, in partnership with the State Societies, is the organization of licensed Professional Engineers (PEs) and Engineer Interns (EIs). Through education, licensure advocacy, leadership training, multi-disciplinary networking, and outreach, NSPE enhances the image of its members and their ability to ethically and professionally practice engineering.

### KSPE MISSION STATEMENT

KSPE is dedicated to promoting, protecting and advocating for the licensed professional engineer. We are the recognized voice for the licensed professional engineer with respect to the Kansas legislature and public policy.

### NSPE VISION STATEMENT

NSPE is the recognized voice and advocate of licensed PEs.

### NSPE VALUES

- Protection of the public welfare above all other considerations
- Ethical and competent practice of engineering
- Innovation through the creative application of math, science and engineering
- The PE license as the highest standard of professionalism in engineering.
- Continuous learning for professional growth
- Growth in the number of licensed PEs
- Teamwork, unity and fellowship of all PEs across all disciplines
- Commitment to the future of the licensed Professional Engineer

### NSPE GOALS

- Foster Chapter-State-National partnerships to seamlessly deliver a core level of service to every member.
- Deliver value to our members that enhances their competence and ability to practice as a Professional Engineer.
- Increase membership to serve and represent the collective interests of all licensed Professional Engineers and Engineer Interns.



Kansas Society of  
Professional Engineers

## 2007 SURVEY RESULTS

### CUSTOMER SERVICE

#### (Questions 1-7)

- 64 % of those surveyed use KSPE as a source for continuing education programs.
- Business and Technical Computer Skills were of limited importance.
- Verbal Communication Skills were of major importance.
- Technical Writing Skills- Very Important (76 %)
- Business Writing Skills- Very Important (74 %)
- Leadership/Management Skills- Extremely Important (85 %)
- Project Management Skills- Extremely Important (86 %)
- 71 % would travel no more than 100 miles for a 6-8 hour course. The preferred price range is \$101-\$200 and should occur during a weekday.

### TYPES OF PROFESSIONAL PROGRAMS/GROWTH

#### (Questions 8-12)

- There was a normal distribution (never to always) for the types of attended professional programs. The majority of the people attended occasionally or often.
- Professional meetings on engineering topics (Question 10):
  - Once a month or more-> 48 %
  - Quarterly-> 31 %
  - Semi-Annually-> 8 %
  - Annually-> 7 %
  - Rarely or Never-> 6 %

### KSPE ACTIVITIES

#### (Questions 13-19)

- At least 82 % of those surveyed thought all 7 of the KSPE activities offered were at least "Somewhat Important".

• (Q 13) 67 % rated MATHCOUNTS as "Important". 41 % rated Engineer's Week as "Important". 45 % rated the Mock PE as "Important".

• (Q 14) 44 % were unaware of the Speaker's Bureau, 24 % were unaware of the Career Fair and Mock PE Exam, 14% were unaware of Engineer-for-a-day, and 10% were unaware of the bridge building contest.

• (Q 14) At least 75 % of those surveyed thought all 7 of the KSPE activities offered were at least "Somewhat Effective".

• 55 % thought MATHCOUNTS was "Effective", and only 3 % thought that the Speaker's Bureau was "Effective".

• (Q 16) Over 48 % of those surveyed have participated in MATHCOUNTS and/or Engineer's Week activities.

• 31 % participate in Engineer-for-a-day. • 24 % have not participated in any of the offered activities.

• (Q 19) 64 % of those surveyed spend 0-2 hours per week on non-KSPE volunteer activities and 33 % spend 3+ hours per week on non-KSPE activities.

### PRODUCTS AND SERVICES

#### RANK (Questions 20-30)

• (Q 20) 95 % of those surveyed thought that engineering interests should be represented in state governmental affairs.

• (Q 22) 69 % agreed that a professional KSPE lobbyist should represent engineering interests, 56 % favored KSPE members, 45 % individual engineers, and 47 % technical societies.

• (Q 24) 46 % said they would be willing to contribute to a State PAC fund promoting engineering issues.

• (Q 25) To those who said they would contribute, most said they would contribute \$51 to \$100.

• (Q 26) 51 % felt that KSPE had "too little" or "none" influence on the KS Legislature. Increased membership and contact with legislators was the solution.

• (Q 28) 51 % thought that the Member Directory, Newsletter, Membership Application Process, and Information Services were "Very or Extremely Important".

• (Q28) 77 % thought Legislative Contact was Very/Extremely Important.

• (Q 30) Continuing education, website, and licensure assistance were the most important expansion areas.

### MEMBER INFORMATION

#### (Q 31-39)

Figure 2: KSPE Member Survey Results Used to Develop 2007 – 2010 Strategic Plan.

## KSPE 2008 – 2012 Strategic Plan

The 2007 - 2012 KSPE Strategic Plan represents input from hundreds of members through a member survey, strategic planning task force, the KSPE Board of Directors and additional membership input.

Through these actions, KSPE has revisited its 1998 strategic plan, reviewed its general purpose, and is "hitting the reset button" on the KSPE organization in terms of its general vision, mission, values, and strategic focus.

### NSPE MISSION STATEMENT

NSPE, in partnership with the State Societies, is the organization of licensed Professional Engineers (PEs) and Engineer Interns (EIs). Through education, licensure advocacy, leadership training, multi-disciplinary networking, and outreach, NSPE enhances the image of its members and their ability to ethically and professionally practice engineering.

### NSPE VISION STATEMENT

NSPE is the recognized voice and advocate of licensed Professional Engineers.

### KSPE MISSION STATEMENT

KSPE is dedicated to promoting, protecting and advocating the success and integrity of the licensed Professional Engineer and Engineer Intern by delivering professional development products and services, encouraging licensure, and advocating legislation and public policy for the betterment of human welfare and the profession.

### KSPE VISION STATEMENT

KSPE is the recognized voice and advocate of licensed Professional Engineers.

### NSPE & KSPE VALUES

- Protection of the public welfare above all other considerations.
- Ethical and competent practice of engineering.
- Innovation through the creative application of math, science and engineering.
- The PE license as the highest standard of professionalism in engineering.
- Continuous learning for professional growth.
- Growth in the number of licensed Professional Engineers.
- Teamwork, unity and fellowship of all PEs across all disciplines.
- Commitment to the future of the licensed Professional Engineer.

### NSPE GOALS

- Foster Chapter-State-National partnerships to seamlessly deliver a core level of service to every member.
- Deliver value to our members that enhance their competence and ability to practice as a Professional Engineer.
- Increase membership to serve and represent the collective interests of all licensed Professional Engineers and Engineer Interns.

### KSPE STRATEGIC FOCUS

- Increase impact on the Kansas Legislature and public policy.
- Clarify/align the KSPE message and more clearly communicate that message to current & potential members, the Kansas Legislature, and the general public.
- Provide for the sustainable growth of KSPE membership and revenues.

### IMPACT THE KANSAS LEGISLATURE & PUBLIC POLICY

- Develop member & non-member workshops to improve interaction with legislators (i.e., grassroots initiatives, local & state political processes, etc.).
- Determine current member participation and capitalize on those resources to expand member involvement.
- Develop & implement formal & informal interaction with public officials (i.e., say hi, be a resource, lobby, testify).
- Encourage member participation in campaign activities and elect members to political office.

### ENHANCED KSPE MESSAGE & COMMUNICATIONS

- Clearly communicate the KSPE message on the website, in written materials, and with electronic communications.
- Develop and communicate the monthly "wins, losses, & progress" activities to current & potential members.
- Initiate actions with other technical and professional societies, the Kansas Board of Technical Professions, and other agencies & organizations to discuss key issues impacting the engineering profession (e.g., BS+30, licensure, etc.).
- Develop information and coordinate speaker bureau initiatives (i.e., E-Week, public schools, chambers of commerce, and service organizations).

### SUSTAINABLE GROWTH OF MEMBERSHIP & REVENUES

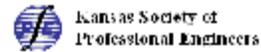
- Provide membership options that meet the needs of KSPE.
- Strengthen membership development programs (i.e., FE & PE practice exams and recognition ceremonies, distribution of literature, member phone calls, etc.).
- Enhance the quality of chapter meetings.
- Increase attendance & participation in society programs (i.e., MATHCOUNTS, bridge building, annual conference, etc.).
- Develop sustainable dues & non-dues revenue sources (i.e., affiliate and agency membership options).

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Figure 3: Summary of KSPE 2008 – 2012 Strategic Plan.

## April, 2009 Transportation Conference

### CITIZEN ENGINEER SURVEY



#### KSPE Call to Action

In 2008, KSPE revisited its strategic plan and "hit the reset button" of its general vision, mission, values, and strategic focus. In this focus, Professional Engineers are challenged to imagine an age of the Citizen Engineer – socially conscious engineers engaged in proactively tackling the issues that face the world today.

Participation in the political process is one key aspect to being an effective "Citizen Engineer". Listed below are a few questions to determine practicing professional levels of interest and participation in federal, state, and local issues. Please take 2-3 minutes to answer questions about your current level of involvement as a Citizen Engineer. Please also identify the areas where you might take the time to be involved.

**Total Reporting: 129**

(Please circle your responses [yes / no] or [1 to 10 with 10 the highest] as appropriate)

I am a registered voter. Yes No

# reporting 128 1

I voted in the last PRIMARY election. Yes No  
110 19

I voted in the last GENERAL election. Yes No  
125 4

Please rate your overall voting record (primary & general elections) during the past 5 years.

1	2	3	4	5	6	7	8	9	10
1	2	1	1	4	6	11	22	32	49

Please rate the extent to which you follow issues impacting your region / state / local level.

1	2	3	4	5	6	7	8	9	10
		2	3	3	9	18	39	30	24

#### Federal

Please rate the extent to which you have contact with your Senators / Representatives / Staff Members.

1	2	3	4	5	6	7	8	9	10
29	20	16	11	10	11	11	12	6	3

#### State

Please rate the extent to which you have contact with your Senators / Representatives.

1	2	3	4	5	6	7	8	9	10
18	19	17	15	14	10	12	10	8	6

Please rate the extent to which you have contact with your State School Board officials.

1	2	3	4	5	6	7	8	9	10
60	23	13	15	4	4	3	4		2

#### Local (City / County/ School District, etc)

Please rate the extent to which you have contact with your elected County officials.

1	2	3	4	5	6	7	8	9	10
20	10	13	8	8	16	14	12	8	19

Please rate the extent to which you have contact with your elected City officials.

1	2	3	4	5	6	7	8	9	10
17	12	12	18	6	14	8	14	10	16

Please rate the extent to which you have contact with your local School Board officials.

1	2	3	4	5	6	7	8	9	10
47	18	14	16	11	3	7	5	3	4

1. Please identify 1 or 2 areas where you might be more involved in the future.

Refer to separate page.

2. What should KSPE do to encourage more member action as Citizen Engineers?

Refer to separate page.

**Thank you for your participation!**

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Figure 4: 2009 Kansas Transportation Conference Citizen Engineer Survey Results.

**June, 2010 KSPE Annual Meeting, Topeka, KS**  
**CITIZEN ENGINEER SURVEY**



**KSPE Call to Action**

**Total Report**

In 2008, KSPE revisited its strategic plan and "hit the reset button" of its general vision, mission, values, and strategic focus. In this focus, Professional Engineers are challenged to imagine an age of the Citizen Engineer – socially conscious engineers engaged in proactively tackling the issues that face the world today.

Participation in the political process is one key aspect to being an effective "Citizen Engineer". Listed below are a few questions to determine practicing professional levels of interest and participation in federal, state, and local issues. Please take 2-3 minutes to answer questions about your current level of involvement as a Citizen Engineer. Please also identify the areas where you might take the time to be involved.

**Amount Reporting: 40**

(Please circle your responses [yes / no] or [1 to 10 with 10 the highest] as appropriate)

I am a registered voter. Yes No  
 40

I voted in the last PRIMARY election. Yes No  
 30 10

I voted in the last GENERAL election. Yes No  
 39 1

Please rate your overall voting record (primary & general elections) during the past 5 years.  
 1 2 3 4 5 6 7 8 9 10  
 # of responses 1 2 2 8 6 6 16

Please rate the extent to which you follow issues impacting your region / state / local level.  
 1 2 3 4 5 6 7 8 9 10  
 1 1 2 5 2 2 7 8 2 8

**Federal**

Please rate the extent to which you have contact with your Senators / Representatives / Staff Members.  
 1 2 3 4 5 6 7 8 9 10  
 14 3 8 4 6 1 1 2 1 1

**State**

Please rate the extent to which you have contact with your Senators / Representatives.  
 1 2 3 4 5 6 7 8 9 10  
 10 2 5 3 6 1 1 5 6 2

Please rate the extent to which you have contact with your State School Board officials.  
 1 2 3 4 5 6 7 8 9 10  
 22 4 5 1 4 3 1 1 1

**Local (City / County/ School District, etc)**

Please rate the extent to which you have contact with your elected County officials.  
 1 2 3 4 5 6 7 8 9 10  
 12 5 3 3 1 8 3 2 4

Please rate the extent to which you have contact with your elected City officials.  
 1 2 3 4 5 6 7 8 9 10  
 8 3 6 2 1 1 3 7 5 5

Please rate the extent to which you have contact with your local School Board officials.  
 1 2 3 4 5 6 7 8 9 10  
 17 7 4 2 1 2 1 2 1 4

1. Please identify 1 or 2 areas where you might be more involved in the future.  
 Refer to separate page.

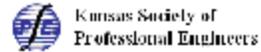
2. What should KSPE do to encourage more member action as Citizen Engineers?  
 Refer to separate page.

Thank you for your participation!

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Figure 5: 2010 KSPE Annual Meeting Citizen Engineer Survey Results.

**June, 2010 KSPE Annual Meeting, Topeka, KS**  
**CITIZEN ENGINEER SURVEY**



**KSPE Call to Action**  
**"More Contact"**

In 2008, KSPE revisited its strategic plan and "hit the reset button" of its general vision, mission, values, and strategic focus. In this focus, Professional Engineers are challenged to imagine an age of the Citizen Engineer – socially conscious engineers engaged in proactively tackling the issues that face the world today.

Participation in the political process is one key aspect to being an effective "Citizen Engineer". Listed below are a few questions to determine practicing professional levels of interest and participation in federal, state, and local issues. Please take 2-3 minutes to answer questions about your current level of involvement as a Citizen Engineer. Please also identify the areas where you might take the time to be involved.

**Amount Reporting: 19**

(Please circle your responses [yes / no] or [1 to 10 with 10 the highest] as appropriate)

- I am a registered voter. Yes No  
19
- I voted in the last PRIMARY election. Yes No  
18 1
- I voted in the last GENERAL election. Yes No  
19
- Please rate your overall voting record (primary & general elections) during the past 5 years.  

1	2	3	4	5	6	7	8	9	10
					1	2	2	4	11
- Please rate the extent to which you follow issues impacting your region / state / local level.  

1	2	3	4	5	6	7	8	9	10
			1	1	1	4	4	2	7

**Federal**

- Please rate the extent to which you have contact with your Senators / Representatives / Staff Members.  

1	2	3	4	5	6	7	8	9	10	
		2	6	2	4	1	1	2	1	1

**State**

- Please rate the extent to which you have contact with your Senators / Representatives.  

1	2	3	4	5	6	7	8	9	10	
			1	2	3	1	1	4	6	2
- Please rate the extent to which you have contact with your State School Board officials.  

1	2	3	4	5	6	7	8	9	10
8	2	4	1	1	2		1		1

**Local (City / County/ School District, etc)**

- Please rate the extent to which you have contact with your elected County officials.  

1	2	3	4	5	6	7	8	9	10
2	2				1	6	3	2	4
- Please rate the extent to which you have contact with your elected City officials.  

1	2	3	4	5	6	7	8	9	10
1	1	1			1	3	4	4	5
- Please rate the extent to which you have contact with your local School Board officials.  

1	2	3	4	5	6	7	8	9	10
6	3	2	1		1	1	2		4

1. Please identify 1 or 2 areas where you might be more involved in the future.  
Refer to separate page.
2. What should KSPE do to encourage more member action as Citizen Engineers?  
Refer to separate page.

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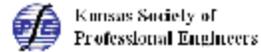
Tom C. Roberts, P.E.  
 College of Engineering  
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Thank you for your participation!  
 KSPE Past-President 2009 – 2010  
 Kansas State University 1056 Rathbone Hall Manhattan, KS 66506

tcr@ksu.edu

Figure 6: 2010 KSPE Annual Meeting Citizen Engineer "More Contact" Survey Results.

**June, 2010 KSPE Annual Meeting, Topeka, KS**  
**CITIZEN ENGINEER SURVEY**



**KSPE Call to Action**

**“Less Contact”**

In 2008, KSPE revisited its strategic plan and “hit the reset button” of its general vision, mission, values, and strategic focus. In this focus, Professional Engineers are challenged to imagine an age of the Citizen Engineer – socially conscious engineers engaged in proactively tackling the issues that face the world today.

Participation in the political process is one key aspect to being an effective “Citizen Engineer”. Listed below are a few questions to determine practicing professional levels of interest and participation in federal, state, and local issues. Please take 2-3 minutes to answer questions about your current level of involvement as a Citizen Engineer. Please also identify the areas where you might take the time to be involved.

**Amount Reporting: 21**

(Please circle your responses [yes / no] or [1 to 10 with 10 the highest] as appropriate)

I am a registered voter. Yes No  
 21

I voted in the last PRIMARY election. Yes No  
 12 9

I voted in the last GENERAL election. Yes No  
 20 1

Please rate your overall voting record (primary & general elections) during the past 5 years.

1	2	3	4	5	6	7	8	9	10
				2	1	6	4	2	5

Please rate the extent to which you follow issues impacting your region / state / local level.

1	2	3	4	5	6	7	8	9	10
		1	2	4	1	1	3	8	1

**Federal**

Please rate the extent to which you have contact with your Senators / Representatives / Staff Members.

1	2	3	4	5	6	7	8	9	10
14	1	2	2	2					

**State**

Please rate the extent to which you have contact with your Senators / Representatives.

1	2	3	4	5	6	7	8	9	10
10	2	4	1	3			1		

Please rate the extent to which you have contact with your State School Board officials.

1	2	3	4	5	6	7	8	9	10
14	2	1		3	1				

**Local (City / County/ School District, etc)**

Please rate the extent to which you have contact with your elected County officials.

1	2	3	4	5	6	7	8	9	10
10	3	3		3	2				

Please rate the extent to which you have contact with your elected City officials.

1	2	3	4	5	6	7	8	9	10
7	2	5	2	1			3	1	

Please rate the extent to which you have contact with your local School Board officials.

1	2	3	4	5	6	7	8	9	10
11	4	2	1	1	1				1

1. Please identify 1 or 2 areas where you might be more involved in the future.  
 Refer to separate page.

2. What should KSPE do to encourage more member action as Citizen Engineers?  
 Refer to separate page.

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Tom C. Roberts, P.E.  
 College of Engineering  
 061510 S:\dooharv\sserv\ASER\citizensongrnsurvey2010.doc

Thank you for your participation!  
 KSPE Past-President 2009 – 2010  
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Figure 7: 2010 KSPE Annual Meeting Citizen Engineer “Less Contact” Survey Results.