ENGINEERS IN ELECTED OFFICE

Background Information and Speaker’s Notes

Intended Audience: Mostly Engineers
Time: Approximately 60 minutes +/- (with video clips)
Hints:

Introduction:

One of the founding principles of the United States of America, as evidenced by the Constitution and Declaration of Independence, is the desire to govern ourselves. However, a pure democracy, or majority rule, was not only impossible from a practical standpoint, but also would not always result in the best interest of the country as a whole. Therefore, the United States government is primarily set up as a republic. The power of government lies with the citizens of her country, who are entitled to vote for officers and representatives that are responsible and held accountable to the people they represent.

We call these individuals “elected officials.” Simply put, these are people who hold a particular office in government by virtue of winning a free election. Most prominent among our elected officials are the President and Vice-President of the United States, but our government takes many forms from the national to the local stages of our lives. From Congressmen to State Legislators to School Boards and City Councils, the primary operations of our government entities are carried out by elected officials.

Most elected officials at the local level volunteer their time in that position while also carrying on with their primary career. At the national level, most have given up that career to devote full time and effort to their elected office. All other combinations exist for those involved in this type of public service, but in general, most have come out of a specific field of work.

Engineers have an important role to play in this endeavor called “elected office.” Historically, three individuals have been President of the United States that could be called engineers. (This is in contrast to 24 of the 42 that could be considered lawyers.)

While not formally educated as such, the first President of the United States, George Washington, is generally regarded as the nation’s first engineer. His primary professions are referred to as military engineering and land surveying. He also promoted the field of engineering in the fledgling country by issuing a call for engineers and engineering education, which eventually became the U.S. Army Corps of Engineers. He also established a Corps of Artillerists and Engineers to be educated at West Point, NY, which became known as the U.S. Military Academy. For this reason, Engineer’s Week is celebrated each year during the week of Washington’s Birthday, February 22nd.

The 31st President of the United States, Herbert Hoover, was also an engineer. He studied geology at Stanford and worked as a mining engineer all over the world.
Although he was highly regarded for his engineering skills, he also earned a reputation as a tremendous organizer of humanitarian relief. His work in World War I to feed Europe during and after the war was recognized around the world as a marvel. This eventually led to his serving as Secretary of Commerce for Presidents Harding and Coolidge before being elected President in 1928. Unfortunately, Hoover will primarily be remembered as the President during the Stock Market Crash of 1929, which plunged America into the Great Depression. His skills, however, were still strong as he was called on to save Europe from starvation again after World War II. He was also appointed chairman of a commission to reorganize the Executive Departments under both Truman and Eisenhower. Of course, his name is attached to one of the modern Wonders of the World, the Hoover Dam, which he championed as President.

**Quote from Herbert Hoover on Engineering:**

“It is a great profession. There is the fascination of watching a figment of the imagination emerge through the aid of science to a plan on paper. Then it moves to realization in stone or metal or energy. Then it brings jobs and homes to men. Then it elevates the standards of living and adds to the comforts of life. That is the engineer's high privilege.”

Finally, the 39th President of the United States, Jimmy Carter, was an engineer. From Plains, Georgia, he attended Georgia Tech, and eventually received a bachelor of science degree from the United States Naval Academy. In the Navy, he became a submariner and took graduate work at Union College in reactor technology and nuclear physics. However, when Carter’s father died, he resigned his naval commission without serving on the nuclear sub, took over his family’s farm, and began his journey into politics. He was elected governor of Georgia and eventually President in 1976. Jimmy Carter may be best remembered for a major success (the Camp David Accords, which was a peace treaty between Israel and Egypt) and a couple of major failures (the Energy Crisis and the Iran Hostage Crisis). After office, Carter has been very active in peacekeeping and humanitarian efforts around the world. For those efforts, he has been awarded the Nobel Peace Prize and the Albert Schweitzer Prize for Humanitarianism.

Many engineers have also served in other elected offices through the years, bringing their technical expertise, rational thinking, and passion for making the world a better place to the political process. It seems, however, that as a whole, engineers are not as involved with the governing bodies of our nation as other professions have been, both from a lobbying function as well as in public service, particularly in elected offices.

In the fall of 2005, the Professional Engineers in Private Practice (PEPP) Young Engineers Advisory Council (YEAC) decided to investigate the engineers that currently serve in elected offices and find out how they got involved, what they have accomplished, and what other engineers should be doing to support these efforts. This presentation presents the results of that research and analysis for the expressed purpose of encouraging and motivating engineers to get involved with our governing processes.
Currently Serving:

Research by the PEPP-YEAC uncovered engineers currently serving at every level of government. Eight United States Representatives and three US Senators hold engineering degrees.

A Governor (Ernie Fletcher of Kentucky), a Lieutenant Governor (Brian Dubie of Vermont), as well as a former Governor (Jim Geringer of Wyoming) and a former Lieutenant Governor (Bill Ratliff, P.E. of Texas) were identified as engineers through YEAC member research. At the state level, a large number of individuals with engineering degrees serve as state representatives and senators. Although this list is probably not exhaustive, every state was researched to the most practical extent. In all, 78 members of state houses and 24 members of state senates were found to work as engineers or have engineering degrees, and one of those is a licensed Professional Engineer: Representative Trudy Williams, P.E. of Florida. All together at the state level, engineers currently hold positions of elected office in at least 37 of the 50 states.

In addition, engineers serve on City Councils, School Boards, Public Service Commissions, and as County Commissioners all over the country. One of those individuals is City of Omaha Councilman Jim Suttle in Nebraska. Wherever service is needed, you can find engineers making big contributions. But why aren’t there more?

Surveys:

The PEPP-YEAC conducted a website survey of all of the engineers identified in the research phase. Over 130 invitations to participate were sent to the identified individuals. More than 20 of these public servants responded by answering detailed questions about how they began their career in politics, how they’ve been received by colleagues, what impact they’ve had on their community/state/nation, and how they want the rest of us to get involved. The remainder of this presentation will deal with the results of this survey and what it means.

Stereotypes:

Engineering stereotypes are well known and play a part in the perception and reality of how and why engineers do or do not get involved in the political process. The responses to the survey confirmed these stereotypes (fair or not), especially as they relate to how others perceive engineers. They included the following traits:

- Introverted
- Reputable/Credible
- Focused
- Technical Mind
- Detail Oriented/Analytical
- Problem Solvers
While each stereotype does not apply to every individual, these may shed some light into the responses of the engineers that responded to the survey.

**Motivation:**

The first question asked of those surveyed was why they decided to run for an elected position. The following reasons were cited as motivational factors:

- Desire to service community.
- Love of community.
- Interest in environmental and consumer issues.
- Felt they were best person for the job due to their technical background.

As shown, the first three factors are more general in the sense that many people who take office may hold these same desires, regardless of their work experience. However, the last factor shows that the engineer was motivated because of their technical education. This was shown to be particularly the case for civil and environmental engineers surveyed. A good portion of these engineers felt they could help a community run more efficiently because they understood the community’s infrastructure (i.e., water, wastewater, stormwater, traffic systems, etc.) due to past work experiences. Their unique engineering experience in private, industrial, or governmental practice gave them the knowledge of how a community runs, and what can be done to make the community run more efficiently; therefore, making them a great candidate for office.

Mr. John M. (Jack) Sullivan P.E., Santa Fe County Commissioner in New Mexico, felt he was a better candidate for county commissioner than the incumbent due to his belief that poor policy practices were being implemented. Mr. Sullivan reported the following as his motivation to take office:

> “I think that most often it is an event or decision by elected officials that the individual believes is wrong or was improperly made that motivates one to seek elected office - thinking that a fresh voice, with technical training, could be of help. In my case, with respect to my campaign for County Commission, I saw poor land use and water policies which would eventually ruin and use up our limited resources.”

Once in office, Mr. Sullivan utilized his past experience as a civil engineer to better his community. In these local cases, many municipalities would have been better served if more engineers with municipal backgrounds were in elected offices.

Mr. Mark Martin P.E., State Representative in Arkansas, had the following to say about the need to get more technically educated individuals in office:
“As we enter a more and more technologically oriented society a great number of the solutions to the problems that governmental bodies face are technological in nature. For whatever reason, there are very few scientists and engineers participating in legislative and governmental executive bodies. In contrast, technologically adept individuals are now filling significant roles in the leadership of private businesses and corporations. I was motivated by the opportunities that are not yet being fulfilled in government and by the need for our public institutions to "catch up" with society technologically.”

Mr. Martin makes a great point. Although many occupations bring their own realm of expertise to office, engineers allow for a wider array of technical knowledge and understanding to the position; thus serving as a greater good for the public.

Based on the comments from the surveyed engineers, evidence exists that those who were motivated to take office did so because their engineering background provided them with a solid platform to sell themselves. A primary difference between engineers in public office and more traditional public officials, such as attorneys or businessmen, is the engineer’s technical background. This technical background prepares engineers with a strong aptitude for detailed diligence and knowledge relative to important public issues, such as infrastructure and development, to make decisions that are in the best interest of their community.

Progression:

Based on the survey results, the YEAC determined there is not one specific path engineers follow to get into office. In general, the progression cited for how the engineers came into office were much the same as for other professionals. Many started at the local level by sitting on community boards and seeing a need for technically trained individuals to be in office to make changes in existing policies. In addition, a few of those surveyed reported that existing legislators and those that were retiring asked the engineer to run for office, as they saw the candidate’s background and education to be of benefit to the office.

Although the progression of an engineer gaining office was not atypical, the knowledge and technical understanding provided by their engineering education was seen as more than an added benefit for the position, it was seen as a major reason the candidate was qualified to fulfill the position.

Getting Elected:

In this day and age of the hot button issue of Qualifications Based Selection (QBS), what better arena to test that philosophy than in the political arena? As a part of our survey on engineers in elected office, the question was posed, “What challenges did you face or
what opportunities were afforded you in getting elected specifically related to being an Engineer?”

Several of the respondents indicate that the reputation of the engineering profession as honest individuals and problem solvers benefited their efforts to obtain elected office. While being a non-lawyer may have opened the door of opportunity for these individuals, their character and their profession certainly helped their chance of becoming elected.

Bill Ratliff, former Lieutenant Governor of Texas, responds: “Many voters told me, ‘If you are not a lawyer, I will vote for you.’ I do believe that Engineers have a general reputation as ‘problem solvers’, and are perceived as people who look at the facts of a situation and not the politics involved.”

Pat Childers, State Representative in Wyoming responds: “Initially, I was questioned about possible biased opinions…and voting with a conflict of interest. Generally, my involvement has been observed as honest and well thought out. So much for boring engineers.”

Edgar Emery, State Representative in Missouri: “Having worked as an engineer seemed to be a benefit to gaining people’s trust.”

We certainly have challenges within the daily operations of our companies and work responsibilities. Additionally, we easily become immersed in what we do to where it seems that there is not much time to be involved in politics. Most of us have families, some of us have church affiliations and many of us have society involvements as well. As Engineers we face challenges each day with respect to job commitments and responsibilities versus commitment to family and friends.

We also, as Engineers, tend to have a reputation of not being the most eloquent at public speaking. Jack Sullivan, Santa Fe County Commissioner in Santa Fe, New Mexico itemized these issues very distinctly. In response to the question, some of the challenges Mr. Sullivan identified include:

“articulating a message; developing an organization in grassroots contexts; fundraising; family support; and the hard work of door-to-door campaigning for many months.”

Doug Osborn, State Representative in the Wyoming House of Representatives comments that in his campaign he was matched against a local attorney who was well known and well spoken. However, Mr. Osborn points out,

“I am an Engineer and have some difficulty with speaking in crowds. I think though, that I do have good credibility and am pretty logical so I was able to present myself fairly well during the campaign.”
In many competitive situations, individuals will be encouraged to “play to their strengths”. In reviewing the responses from the participants to our survey, it is evident that each one recognizes that truism. We as engineers are responsible to exhibit our perceived integrity, not only through our honesty but also through our ability to methodically produce solutions for clients and often our communities.

Mark Martin, State Representative for the state of Arkansas comments,

“I found it necessary to convince the voters that I would use my professional abilities to find win/win compromise solutions to problems. Much of the modern electrum has become weary of the partisan nature of government that does not seek solutions and ends in deadlock in an activity.”

While seeking elected office may seem like a daunting task for the stereotypically introverted Engineer, it can be a very rewarding experience. Craig Musselman, a Selectman for the Town of Rye, New Hampshire puts it in good perspective:

“Running for office is like nothing we do in professional practice. It is a new experience on a number of different fronts, soliciting the help of others, putting out signs, asking for people’s vote; all the these things are contrary to most engineers nature. Making that leap to run for office is quite a challenge. Being an engineer was a significant opportunity in terms of getting elected because contrary to concerns voiced by some engineers, I believe that engineers are held in pretty high esteem by the general public as people who are honest, straight talking, smart and typically not having agendas and preconceived notions. We are generally wired to tell the truth and be objective, which people generally sense and greatly appreciate.”

**Challenges or Opportunities of Being an Engineer in Elected Office:**

Once an engineer finds themselves in an elected office, then the real work begins. Results of our survey found that, in general, engineers experienced nothing but positive results for being an engineer in their particular realm. Common feelings that were expressed included the following:


Bill Ratliff, P.E., Former Texas Lieutenant Governor: “Being an engineer was nothing but positive. I enjoyed a high level of credibility both with other legislators and with the public because I generally formed my opinions based on factual research and not emotional factors. I was also seen as one who did his homework and didn't try to bluff my way through an issue.”
There are at least two ways that engineers in elected office feel that they have an advantage in the work they are trying to accomplish. First, technical issues are usually familiar territory for engineers, and therefore they can be trusted.

Robert Daigle, P.E., Maine State Representative: “Great opportunities!...Many other legislators come to see you have a technical understanding and they defer to your judgment.”

Wayne Smith, P.E., Texas State Representative: “As an engineer, I am often deferred to on technical matters, for example, highway construction, environmental permitry, water measures, and the like. In my first session, I was asked to joint author a low level radioactive disposal bill because ‘the members will vote with you because you are an engineer’.”

Richard C. Mange, P.E., St. Louis, Missouri County Councilman: “Other elected officials that I served with started relying on me for answers to many of these issues.”

Brad Daw, Utah State Representative: “As an expert in technology, I was able to speak with authority on the few but growing number of laws dealing with it.”

The second way in which elected engineers felt they had an advantage over their peers was in their methodology of approaching any issue.

Douglas D. Osborn, P.E., Wyoming House Representative: “I think I have a more systematic approach to issues than many of my cohorts and believe this is rooted in my engineering training.”

Mark Gottlieb, P.E., Wisconsin State Legislator: “My background in a profession which is more analytical than most people has made me a person that others seek out in relation to issues that are detailed and require lots of quantitative analysis (budgeting, aid formulas, etc.)”

However, in the end, some old fashioned politics is still part of the process.

Mark Martin, P.E., Arkansas State Representative: “Because ‘the engineering mind’ is one that seeks solutions and gathers information to find an ‘optimum’ solution to a problem, I personally found it difficult to cope with the ‘messy’ and disorganized process inherent in the legislative process.

I found that by humbly making known my skills and expertise, I was by far a more effective legislator by ‘lobbying’ and educating my fellow legislators OUTSIDE the committee process at informal and social gatherings.

Issues Impacted:
By serving the public to the best of their abilities, most engineers find they are able to have a significant impact on the world around them. This is especially true of those engineers serving in elected office. The former Lieutenant Governor of Texas, Bill Ratliff, P.E. said:

_I found that every issue on which I undertook to lead was aided by my training as an engineer. Engineers are trained to solve problems, and we can use that training to analyze a problem and construct a solution on all types of problems, including public school finance, budget, lawsuit reform (all of which I carried major legislation for)._ 

Most engineers in public service feel the same. Based on the responses to our survey, the issues that engineers were able to influence were varied and many. A number of these engineers were able to impact technical and scientific issues because of their backgrounds.

Mark Martin, P.E., Arkansas State Representative: _“I was able to enact legislation that improved math and science education and also empower the Arkansas Science and Technology Authority to be more impactful in the economic development initiatives in my state.”_

Robert Daigle, P.E. Maine State Representative: _“Science is more accurately presented to support policy making. Deliberate misrepresentation of science has essentially stopped (after a few hot public hearings!) Technical departments in state government seek you out to understand, support and communicate issues - and you again have a great deal of influence in shaping the debate.”_

This impact can be a huge benefit for the engineering community, as laws that impact how we work and live can be shaped by other engineers. However, the impacts of these men and women were not limited to just typical engineering domains either. Those listed included:

- Affordable Housing Ordinance
- Area Infrastructure Funding
- Budgets
- Conservation/Demand Side Management
- Contracting Issues
- Debate of Non-Engineers Supervising Engineers
- Design and Construction of Major Projects
- Development of State’s Highway Plan
- Drainage Policies and Laws
- Earthquake Resistance
- Energy Efficiency
- Environmental Stewardship
- Highway Funding
- Insulation
- Integration of Renewable Resources
- Internet Pornography
- Interpreting and Modifying Ordinances
- Land Development
- Local Government Issues
- Municipal and Transportation Engineering
- Natural Gas and Electricity Portfolio Planning
- Planning and Environmental Services
- Professional Procurement and Qualifications Based Selection
- Public Facilities Maintenance
- Reduction in Land Use Variances
- Resource Acquisition Strategy and Procurement
- Road Reconstruction
- Road System Master Plan
- School Funding
Specifically, it seems that engineers have a way of approaching problems or issues that allow them to affect the outcome. This was also a theme of the responses to how engineers have had an effect on the world.

Douglas D. Osborn, P.E., Wyoming House Representative: “I think being a systems oriented person helped in tackling this huge problem and knowing how to work with teams of diverse disciplines as I had done in my aerospace career greatly helped me in being successful.”

Charles P. “Pat” Childers, P.E., Wyoming State Representative: “My Chemical Engineering education has allowed me to use factual information to pass legislation on facts rather than speculation.”

It’s easy to see that with a logical approach and honest truth-seeking, engineers change the world around them by getting involved in the debate on public policies and conduct. For some, however, getting involved to this degree means a change in the way they view and carry on their engineering careers.

Difficulties in Balancing an Engineering Career with Public Service:

When reviewing responses from our survey concerning the difficulties encountered in balancing a career and public service, it became apparent that the biggest issues include time, or lack thereof, flexibility in work schedule, and the lack of support from employers. It is understandable, then, why approximately 30% of the elected officials surveyed are retired from their professional careers.

Being in public service requires a significant time investment that can and typically does cause time conflicts and difficulties with family, job responsibilities and employers. Although there were varying responses, some of the officials expressed gratitude and appreciation for co-workers and family, in particular spouses, for assisting them in accomplishing the public and professional responsibilities. Cindy Gustafson, a Village Trustee in the State of Illinois, best summed up the difficulties in balancing time with her short comment: “Time, not enough of it.”

A flexible work schedule is a necessity for the engineer serving as a public official. Although there may be some employers that see the benefit and are willing to work with scheduling for public officials, many of the responses indicate the opposite. As an example, vacation and unpaid time off may be necessary to fulfill public responsibilities.
Listed below are some comments made regarding the public servants’ career responsibilities and employers:

Brad Daw, Utah State Representative: “The simple fact is that few if any engineering managers see my elected office as anything other than time away from work.”

Mark Martin, Arkansas State Representative: “My overall income has been significantly impacted and I have even had to make a career change to a company that more highly valued ‘extra curricular activity,’ as they put it.”

Allen Icet, Missouri State Representative: “While the legal profession understands and encourages lawyers to run for office, the corporate world in which I work sees little if any benefit when it comes to an engineer doing such.”

Douglas Osborn, Wyoming State Representative (retired from engineering career): “I would caution others considering politics to very carefully investigate the time requirements of the position being considered versus the hours available away from the ‘real job.’

Robert Daigle a State Representative from Maine, provided a unique insight for the balancing act based upon his own personal experience:

“Initially I had to leave my job as an environmental manager and become self-employed. At first getting work was hard – some companies were thrilled that I was in elected office, but they hesitated to hire me for fear of a “conflict of interest” charge. Conflict is rarely a problem – but some political opponents may make the charge anyway. Eventually the contacts I made (HUGE exposure!) led to more consulting work than I can handle. The whole experience has led to a tremendous step-change in my professional development. You end up having so much perspective on how things work that you are very valuable in the field.”

To summarize, many of the elected officials indicated sacrifices to personal time and professional career are necessary. Having an understanding and an encouraging employer would help with the career aspect, but an engineer aspiring to serve in public office must be ready and willing to make personal and professional sacrifices. Starting public service near the end of an engineering career or following retirement may be an option for serving the public while still maximizing a career.

**What should engineers do to assist legislators on matters of technical interest?**

Balancing a professional life along with a personal life is a difficult job for all engineers, even if they have the energy and desire to do so. As a result, many engineers feel that they don’t have the time to get involved in politics. While taking a political office may not be for everyone, there are still ways for engineers to get involved.
When asked what engineers can do to help or assist those in office, the engineers in public office responded with a single answer, provide politicians with valuable engineering insight and information on the various issues. As Illinois Senator Dale Risinger, P.E. explains, “Engineers have credibility and need to be heard. Too many think that elected officials will do the right thing on their own. Legislators are being provided information from all sources, some of it is very good and some of it is very slanted. Engineers need to have a first name contact with their elected officials. They need to step forward and present their views on legislation that they have expertise on. It is too easy to sit back and hope someone else does it because you are too busy…”

Engineers today have many ways to provide information to the legislators who represent us. The first and possibly least time consuming option is through active support of and involvement in professional organizations, such as the National Society of Professional Engineers (NSPE). As described in the benefits section of NPSE membership, “Through NSPE, you are represented on Capitol Hill, in local legislatures, and to the public. NSPE speaks for the engineering professionals and we give our members the tools and information they need to communicate with legislators and government officials…Resources, such as the NSPE Political Action Committee, Position Statements, and the Legislative Action Center to help engineering professionals communicate with legislators and government officials.” As seen below, legislators emphasized this society involvement:

Harold Williams, P.E., Carson, California City Councilman: “I would suggest that professional engineers working through organizations such as NSPE, establish and maintain effective working relationships with their legislators.”

John M. Sullivan, P.E., Santa Fe, New Mexico, County Commissioner: “Also technical and professional society lobbying is very effective and should be encouraged to keep engineer’s issues up front.”

While large organizations and societies typically have easier access to the state and national leaders, individuals still have plenty of opportunity to get involved and be heard. Engineers should get to know both their local legislators and the legislators’ aides. Once this relationship is established, engineers will have the opportunity to contact the legislators, or be contacted by the legislators, to provide information on various issues. As seen below, several legislators encouraged just this type of involvement:

Bill Ratliff, P.E., Former Lieutenant Governor of Texas: “…they must create a one-on-one relationship with legislators so that their opinions will be heard and they will have credibility when they communicate with the legislator.”

Allen Icet, Missouri State Representative: “Support engineers who work in the legislature in any way you can. There is no comparison when it comes to learning about an issue from a colleague as compared to someone you don’t know.”
John P. Mick II, P.E., Illinois High School Board Member: “Get to know them and let them know what to do on the issues. It’s a sad state of affairs when only 10% of us vote and a lot of us do not even know who our reps are.”

Charles P. Childers, Wyoming State Representative: “Professional Engineers provide assistance many times to legislators on issues. They have helped in the past to determine the best approach to pass regulations and based on science.”

Richard C. Mange, P.E., St. Louis, Missouri County Councilman: “It is critical that engineers be heard by elected officials at all levels because of our special expertise in many areas that effect everyday government.”

In addition to providing information directly to a single legislator, engineers are also encouraged to get involved on technical committees and be willing to testify before legislative committees. As described below, this committee involvement was reinforced over and over again by legislators:

Mark Martin, P.E., Arkansas State Representative: “Make yourself readily available to testify in a committee in support of legislation that he/she has proposed. Watch the bills as they are introduced during the session for those that you support and contact that representative or senator and ask if they need a professional witness before a committee.”

John M. Sullivan, P.E., Santa Fe, New Mexico, County Commissioner: “Technical issue committees are of great use to legislators who have limited time to study issues...Do what you do best. Research the issues, collect facts and make reasoned decisions and recommendations.”

Douglas D. Osborn, P.E., Wyoming House Representative: “Be there to testify before committees when technical areas of their interest are discussed and bills being developed or considered. Write letters to legislators on issues of interest to them, and in particular contact legislators in their districts or who are on committees of their interest.”

While engineers are encouraged to support their fellow engineers in political office, they should also be willing to provide information and opinions to other politicians as well. When corresponding with any legislator, Maine State Representative Robert Daigle, P.E., reminds engineers to “learn to speak simply – learn to communicate to non-engineers.”

Conclusions:

Finally, the YEAC asked each participant in the survey, “Do you have any comments, suggestions, or stories to tell related to engineers seeking and holding elected office?” The following comments are the answers and advice to that question:
“Unfortunately, one of the reasons that the vast majority of engineers studied engineering was because they were more comfortable with numbers than they were with people, and politics (public office) is a people business. Engineers must become more comfortable “pressing the flesh” and making public presentations if they are to consider public service.”

“It's a wonderful experience. Be sure you are committed to being a good representative.”

“Too many to tell”

“If you decide to run for office, run on the basis of your engineering background, and your related project management, business, legal, and regulatory perspective and experience. These are unique and important qualifications for almost any public office, and people will appreciate them more than you think.”

“After serving only three years in the Illinois General Assembly, I am convinced that we need more technical thinkers in the Assembly. Most engineers that I have talked with feel that they do not have the time. I have enjoyed talking with engineers about the process and political system we have in Illinois.”

“Generally speaking engineers and scientists have a very different view of law from those of non-scientific background. We view laws as absolute (things never fall up). Laws are the framework we work within to accomplish tasks. Others view laws as something to be manipulated”

“This has been one of the most rewarding things I have done in my life. The education on areas that I had no previous knowledge of is amazing. I feel I have made a real difference in the lives of Wyoming citizens and only regret not having started sooner. It is a very high intensity activity for those of us who really work at it. It is frustrating when things don't go the way you know is "the right way", but overall is a very satisfying thing to do. I recommend it highly and I wish we had more engineers in our ranks.”

“It's rewarding and Engineers are well qualified for the role”

“It has been said, ‘All politics is local’ so as soon as you feel passion for it, get involved in your community at the grassroots level. And work towards getting appointed to a committee or commission by volunteering, volunteering and volunteering. Volunteers get noticed and rewarded for their unselfish giving.”

“Understand the value of collaborating and compromising. Involve the public. Return reporter phone calls promptly. Get the press on your side. Remember constituent services; most constituents only have a need to contact you once, and the results of that contact are important to them.”

“Sure, but way too much to put here“
“I believe that engineering is as much about how you think about problems as it is about having a specific body of knowledge. We need more people in elective office with that kind of apolitical solution oriented approach.”

“Public speaking and nurturing an extroverted personality are critical to success for engineers in politics. Even when you are in a political debate about the "average logarithmic energy decrement per generation of thermalizing neutrons", few of your colleagues will recognize that you are an "expert" on the subject even if you are. ALWAYS get the assistance of another non-legislator EXPERT engineer to testify before the committee. Once you become a politician, then everything you say and do is subjected to the filter that you are first a politician and may have a hidden agenda. On the other hand, a "pure, non-politician" engineer is almost always trusted as honest and forthright. Becoming a politician removes that "aura" and places you on the level of lawyers and used car salesmen. Deal with it.”

“I got the feeling that voters had a lot more confidence in you after learning that you were an engineer than many other professions.”

“Many thoughts - but my time is limited at the moment. I have served in office for 8 years now. I would very much like to share it with other engineers.”

“Engineering training, experience and expertise has provided very real credibility and opportunity to have extraordinary impact on important public issues for consumers, environment, low income families, sound energy policy. Engineering background, critical thinking and analytical skills have been invaluable attributes in political and public policy arenas.”

“Be active in your community. Offer expertise, but learn how to present technical issues with short, brief comments.”

“Give it a try. WAY TOO MANY LAWYERS!”

“Engineers should seek public office because of the specialized training we have, and our logical approach to problem solving. Also do not be discouraged if you aren't successful the first time. If you are not in the public limelight, it will take a little time to generate the name recognition needed to be elected. Once elected, take your office seriously and try to stay independent of the many special interests that will assault you.”

Questions and Comments:

Questions and comments should always be welcome, even if the answer is not readily available.