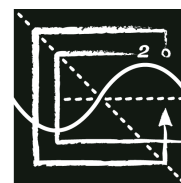


STRATEGIC PLAN

Adopted by the
NCEES Board of Directors
August 2012
Revised February 2014
Revised February 2015



NCEES

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Background

In September 2011, the NCEES board of directors, working in concert with NCEES senior staff, began developing a new strategic plan for the organization. Meeting at a retreat at NCEES headquarters in Clemson, S.C., the group focused primarily on the strategic environment, mapped the key trends that would affect NCEES in the future, identified barriers to continued success, and determined which existing NCEES initiatives are responsive to the changing environment.

Between the September retreat and subsequent board of directors meeting in November, the environmental trends that had been identified were tested with member boards through an online survey. The results of that survey helped guide the discussion at the November meeting, where purpose, values, vision, and goals were addressed.

Following the November meeting, two interim steps occurred:

1. A series of six one-on-one interviews with executive directors of affiliate societies was conducted, and the results were shared with the board of directors prior to its February 2012 meeting.
2. In two iterative surveys, board members were asked to identify and then rank the conditions that could make each goal critical for NCEES to pursue. The results of that ranking were used in February as the basis for developing objectives.

In the final planning meeting in February, the board of directors confirmed the purpose, clarified the vision for NCEES, and recrafted the draft goals. This resulted in a set of six goals, as well as creating priority objectives and possible metrics for each goal. In March, consultant Cate Bower met with NCEES senior staff in Clemson to refine objectives, create strategies for the first 12–18 months, and finalize recommended strategies. The staff then did a final review of the product of that session. The entire plan, with those additions, was provided to the board of directors for approval. The board voted to adopt this strategic plan at its August 2012 meeting.

The model used in developing this plan is based on the four planning horizons approach to strategic planning illustrated on the next page.

10–30 YEAR PLANNING HORIZON
Core Ideology and Envisioned Future

Strategic Planning Horizons**



*Core Ideology: Core Purpose & Core Values

* Adapted from Built to Last, Collins & Porras, 1994

** Adapted from 4 Planning Horizons, Tecker Consultants, 2001

CORE IDEOLOGY

Core ideology describes an organization's consistent identity that transcends all changes related to its relevant environment. Core ideology consists of two notions: core purpose—the organization's reason for being—and core values—essential and enduring principles that guide an organization.

Core Purpose of NCEES

The purpose of NCEES is to advance licensure for engineers and surveyors in order to safeguard the health, safety, and welfare of the public.

Core Values of NCEES

- Importance of demonstrating competency
- Ensuring the highest quality in everything we do
- Defined standards ensure public safety
- Active engagement of key stakeholders in our work
- Leadership in licensure

ENVISIONED FUTURE

Envisioned future conveys concrete, but yet unrealized, vision for the organization. It consists of a big hairy audacious goal—a clear and compelling catalyst that serves as a focal point for effort—and a vivid description—a vibrant and engaging description of what it will be like to achieve the big audacious goal.

Big Hairy Audacious Goal (BHAG)

NCEES leads in the development and establishment of standards of licensure that protect the public, resulting in licensure and mobility for all professionals in engineering and surveying.

Vivid Description

What constitutes success if we achieve the vision?

What would we like to see happen?

- Engineering is the most respected profession.
- There is a more robust accreditation system and more qualified engineers.
- The U.S. engineering and surveying licensure system is the global model for licensure and viewed as the gold standard internationally.
- NCEES becomes clearinghouse for all foreign applicants for licensure in the United States and licensure of U.S. engineers and surveyors in foreign countries.
- The industrial exemption is eliminated.
- NCEES standards are broadly adopted internationally.

What would NCEES look like?

- Simpler to all
- Transparent
- Culturally diverse
- More nimble
- Larger and providing more services
- Recognized resource

What will NCEES feel like to stakeholders?

- NCEES is the best of the best.
- NCEES is an international organization.
- The exam process is totally an NCEES process.
- Member boards have the option of shifting the application process to NCEES and could instead concentrate on licensure, enforcement issues, safety, etc., if they so choose.
- Stakeholders have the utmost confidence in the organization.

What will NCEES have achieved?

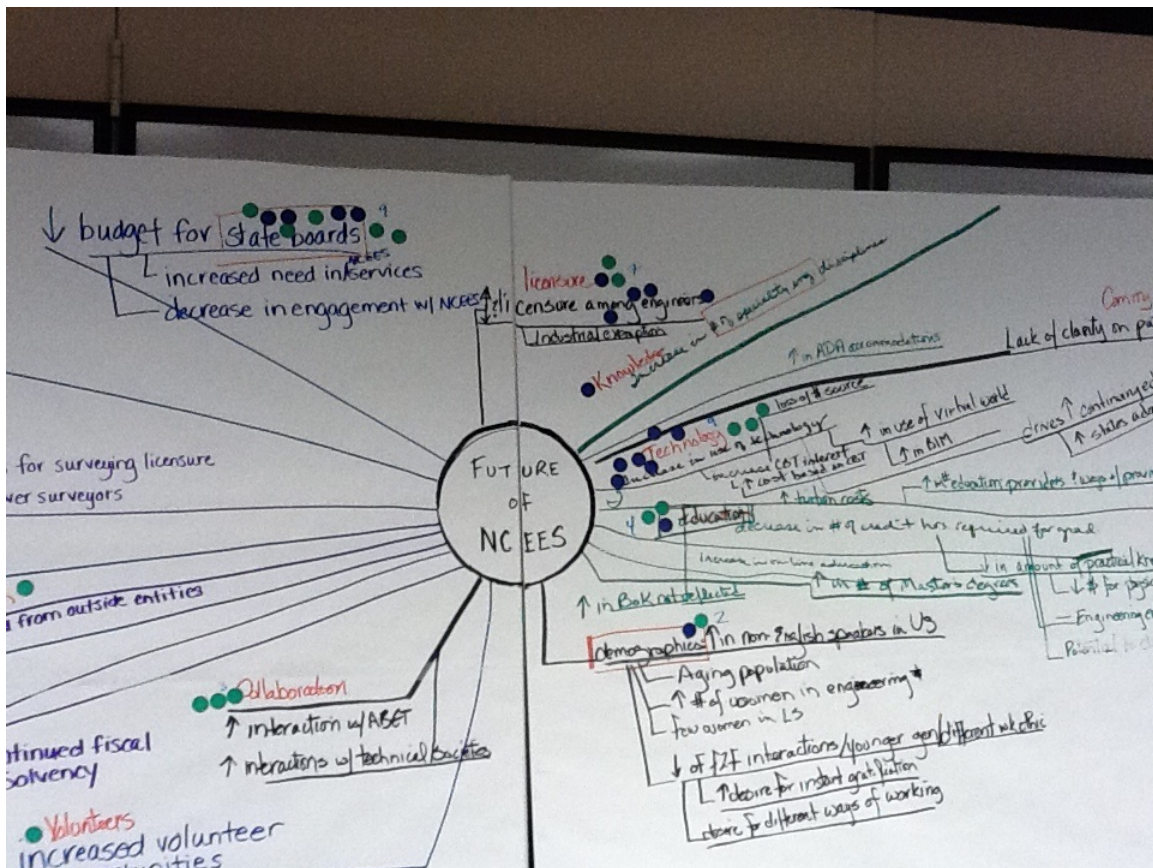
- Higher degree of protection of the worldwide public health, safety, and welfare
- Uniformity in recognition of licensure credential
- Absolute/full comity and mobility of practice
- Enhanced worldwide public protection—fewer catastrophic events

5-10 YEAR PLANNING HORIZON

Building Foresight: Environmental Factors

Assumptions about the relevant future environment will help NCEES purposefully update its strategic plan on an annual basis. Goals are a necessary foundation for successful strategic planning. Goals are based, in part, on anticipation of the possible future. NCEES' projected future environment is described in this section. An annual review of these assumptions will help NCEES budget the necessary funds to ensure the ongoing relevance of its strategy. When conditions change, the strategy will need to be adjusted. The assumptions, which appear here, are those deemed to be most critical to the NCEES budget within the next 3-5 years.

Working together, the group created a visual mind map of the emerging trends and issues that might have an impact on NCEES and those it serves over the life of the plan. The picture of the mind map appears below.



5–10 YEAR PLANNING HORIZON: ENVIRONMENTAL FACTORS

These are the key areas identified along with frequency counts of the relative importance of the identified trends. Contradictory trends were permitted.

State boards (9)

- Declining budgets for states
- Increased need for NCEES services
- Decreased participation in NCEES

Technology (9)

- Increase in use of technology
- Increased computer-based testing (CBT) interest
 - Increased costs based on CBT
 - Loss of revenue source
- Increase in use of virtual world
 - Increase in building information modeling (BIM)
- Drives increased continuing education
 - Increase in number of states adopting continuing professional competency (CPC) requirements

Financial (9)

- Continued financial solvency

International competition (7)

- Increased international competition
- Insufficient number of U.S. engineering graduates
- Increased interest in foreign exam administration

Comity (7)

- Lack of consistency on path to comity/licensure
- Increased interest in Records program

Engineering Licensure (7)

- Increased/decreased number of engineering candidates for licensure
- Industrial exemption

Surveying Licensure (5)

- Decline in number of surveying candidates for licensure
- Aging population
- Increase in education requirements for surveying licensure
- Increase in technology results in fewer surveyors

Education (4)

- Decline in number of credit hours required for graduation
 - Decline in amount of practical knowledge
 - Decline in amount of money for physical facilities at universities
 - Unclear impact of the engineering education initiative
- Increased tuition costs
- Increase in number of education providers and ways of providing
- Increase in Body of Knowledge
- Increase in amount of online education
- Increase in number of master's degrees

Collaboration (3)

- Increase interaction with ABET
- Increase interactions with technical societies

Demographics (2)

- Increase in non-English speakers
- Increase in number of women in engineering
- Few women in surveying
- Decline in face-to-face interactions
 - Younger generation with different work ethic
 - Increased desire for instant gratification
 - Desire for different ways of working

Other areas

- Outreach (1)
- Globalization
- Testing (1)
- Sustainability
- Certification
- Volunteers (1)
- Public (3)

5–10 YEAR PLANNING HORIZON: MEGA ISSUES

Mega issues are issues of strategic importance that represent challenges the organization will need to face in defining the ultimate direction of its long-range plan. These issues represent potential impediments to achievement of the envisioned future and form a basis for dialogue about the choices facing the organization. These questions can also serve as an ongoing menu of strategic issues that the board of directors and senior staff can use—in a knowledge-based approach to gathering insights relative to NCEES' strategic position and directional choices—to create regular opportunities for strategic dialogue about the issues facing the organization and its member boards.

How NCEES Operates

- Why do we do things the way we do, and how do we shift the mindset to be more open to new ideas?
- What are the limitations of the available resources, and how do we ensure we have sufficient resources to accomplish our plan? What resources will we need to fulfill the plan?
- How do we avoid overcomplicating solutions to complex problems?
- How can governance facilitate active participation by all member boards?

Licensure

- How do we impact state regulations and laws that are barriers to licensure and effectively work within the limitations those pose? (industrial exemption)
- How do we build consensus around licensure? How do we manage the differing objectives of differing engineering groups?
- How do we keep/get the engineering societies and industry to value the importance of licensure?
- How do we get students and faculty to value the importance of licensure? What are the barriers to getting people to take the FS, FE, PS, and PE exams?
- How do we get greater standardization (comity) across states?

Relationship with Member Boards

- How do we better deal with the complexities/inconsistencies posed by the differing structures of our member boards?
- How do we compensate for the high degree of turnover among members of member boards?

Communications

- How do we communicate more effectively with our constituents?
- How do we help candidates better understand the differences between the work of NCEES and the work of the licensure boards?

3–5 YEAR PLANNING HORIZON

Outcome-Focused Goals, Objectives, and Metrics

The following thinking represents the organization’s goals for the next 3–5 years. These goals are outcome-oriented statements that define what will constitute NCEES’ future success. The achievement of each goal will move the organization toward the realization of its envisioned future. The objectives reflect the broad range of directions that will be undertaken to change existing conditions in order to achieve the goal.

Standards

NCEES is the recognized leader in developing and establishing licensure standards that serve to safeguard the public, are used by all member boards, and lead to increased mobility.

International

The NCEES examinations will increasingly be used outside the United States as an outcomes assessment tool and to assist in determining minimum competency.

Public Awareness

The general public has greater understanding that engineering and surveying licensure are essential to safeguarding public health, safety, and welfare.

Growth of Licensure

The demonstrated value of licensure will result in continued growth in the number of licensed engineers and surveyors.

Organizational Governance

NCEES’ governance processes and structures will facilitate active engagement of all member boards.

Education

Education standards for entry into professional practice and for continued licensure will continually evolve to reflect minimum requirements for the protection of the public.

STANDARDS GOAL

NCEES is the recognized leader in developing and establishing licensure standards that serve to safeguard the public, are used by all member boards, and lead to increased mobility.

Priority Objective

1. Increase acceptance of Model Law Engineer/Model Law Surveyor among member boards.

Strategies

- a. Expand and maximize the use of NCEES systems to facilitate uniformity among member boards. *High priority*
- b. Charge the MBA committee/task force to promote the adoption of the NCEES *Model Law* for mobility purposes. *High priority*
- c. Benchmark common continuing education requirements by all member boards, and develop an action plan to promote the adoption of common standards for continuing education requirements. *High priority*
- d. Continue to serve as a resource to member boards on international matters related to licensure.
- e. Enhance and maintain a system whereby NCEES maintains the pertinent credentials for licensed individuals to include exam results, the evaluation of education, Council Record information, etc. Make it available electronically to all member boards to better facilitate mobility.
- f. Create a crisis communications plan (through member board level).

Metrics

- Within 2 years, 90% of member boards are using the NCEES examinee management system (E3) to verify exam results.
- 75% of member boards are using the automatic approval option in the NCEES E3 system to approve CBT examinees.
- Within 3 years, the Council has developed and adopted a plan to provide uniformity to continuing education requirements to enhance mobility.
- A crisis communication plan is developed and available on the NCEES website within 18 months.

INTERNATIONAL GOAL

The NCEES licensure standards will increasingly be used outside the United States as an outcomes assessment tool and to assist in determining minimum competency.

Priority Objective

1. Promote the use of the NCEES fundamentals exams as outcomes assessment tools to all foreign programs that attain ABET accreditation for engineering and surveying programs.

Secondary Objective

2. Promote the use of the NCEES PE exam for use in determining minimum competency.

Strategies

- a. Educate member boards on the need and value of international comity.
- b. Increase NCEES' participation in the activities of internationally based engineering licensure organizations.
- c. Facilitate international agreements between member boards and international entities that make requests.

Metrics

- NCEES pursues leadership role in the International Engineering Alliance within 1 year.
- NCEES exams are offered in 5 additional foreign countries within 3 years.
- Track international examination statistics.
- Within 2 years, NCEES will develop and implement a plan to promote the use of the FE examination as an outcomes assessment tool to all foreign EAC/ABET-accredited programs that have an existing Pearson VUE testing center in the area.

OUTREACH GOAL

The general public and other key stakeholders have a greater understanding that engineering and surveying licensure are essential to safeguarding public health, safety, and welfare.

Priority Objective

1. Increase awareness of licensure and the value of licensure to the public and key stakeholders.

Strategies

- a. Continue outreach events/activities in concert with the annual meeting as appropriate.
- b. Establish an Emerging Leaders program to promote the value of licensure and to provide the opportunity to receive feedback concerning the licensure process.
- c. Further develop NCEES relationships with technical and professional societies to identify, evaluate, and promote common goals.
- d. Develop a tool kit to assist member boards in legislative efforts.

Secondary Objective

2. Educate the public on roles of professional engineers and surveyors.

Strategies

- a. Explore additional opportunities to promote engineering, surveying, and licensure to the audiences defined in the integrated marketing plan, i.e., DiscoverE, Family Day, and National Surveyors Week.

Metrics

- Parameters for an Emerging Leaders program are established and implemented within 1 year.
- Grant program for Engineers Without Borders is evaluated and a determination concerning future sponsorship is provided by the NCEES board of directors.
- Tool kit to assist member boards with legislative actions is developed and available as a resource to all member boards via the NCEES website within 2 years.

GROWTH OF LICENSURE GOAL

The demonstrated value of licensure will result in continued growth in the number and diversity of licensed engineers and surveyors.

Priority Objective

1. Increase the understanding of the value of licensed engineers and surveyors by academia, students, corporations, government, and the general public. Consider actions that the Council can pursue to increase the population and diversity of candidates taking the NCEES examinations.

Strategies

Academia/Students

- a. Revisit previous task force study and recommendations regarding licensure for faculty, including nontraditional paths to licensure for faculty.
- b. Use the planned Emerging Leaders program to better understand impediments to licensure and the motivation for individuals to pursue licensure.
- c. Move to year-round testing for FE and FS computer-based examinations.
- d. Increase the number of licensed faculty.
- e. Increase the opportunities for engineering and surveying students to be presented information regarding the value of licensure. (Way to engage board members and other volunteers)
- f. Increase the exposure of students to professional practice.

Corporate/Government/Public

- a. Explore alternative methods of measuring experience in order to qualify for licensure.
- b. Work to dispel the myths about who can and cannot qualify for licensure.
- c. Seize opportunities to promote the value of licensure.
- d. Monitor key areas through options like Google Analytics.

Member Boards

- a. Encourage member boards to decouple experience as a requirement to take the PE exam. Provide data and support for decoupling the experience requirement from the exam requirement.
- b. Encourage member boards to notify NCEES immediately regarding legislation or issues that could affect the regulatory environment.

Professional Societies

- a. Develop partnership with professional societies to decrease the number of industrial exemptions.

Metrics—To be reviewed

- Establish benchmark information for academia, student, corporate, and government audiences within 12 months.
- Amend the integrated marketing plan to incorporate feedback from the Emerging Leaders program and to include additional outreach efforts for promoting licensure to engineering and surveying faculty.
- Develop and implement a minimum of 2 new marketing campaigns/efforts that provide engineering and surveying students with information concerning the benefits of licensure.
- Survey member boards and provide benchmark information on the number of boards that have decoupled experience as a requirement for taking the PE exam. Disseminate findings within 12 months.

ORGANIZATIONAL GOVERNANCE GOAL

NCEES' governance systems, processes, and structures will facilitate active and effective engagement of all member boards.

Priority Objectives

1. Increase leadership identification and development opportunities.

Strategies

- a. Assign mentors at zone meetings and annual meetings.
 - b. Identify and track leaders; educate member boards about the leadership process.
 - c. Provide synopsis of paths to leadership to provide a clearer understanding for people interested in pursuing leadership positions.
 - d. Explore more opportunities for younger/newer members to engage in volunteer/leadership opportunities
 - e. Promote the role of member boards within the organization of NCEES.
2. Maintain financial support of delegates to attend Council meetings.

Strategy

- a. Continue to provide funding as approved in the budget process for members to attend NCEES meetings.

Secondary Objectives

3. Increase effective participation of members and member boards to increase national engagement.

Strategies

- a. Explore opportunities to engage younger professionals in the work of NCEES.
- b. Increase effective engagement by member boards at NCEES meetings.
- c. Investigate possible barriers to member board engagement with NCEES.

Metrics—to be reviewed

- Develop a survey to ascertain existing impediments to greater member engagement with NCEES or pursuit of a leadership position; issue survey to all members of NCEES member boards within the next 12 months.
- Each zone vice president assigns a mentor to all new attendees at each zone meeting effective with the 2015 zone meetings.
- Within 12 months, develop and include information concerning paths to NCEES leadership positions in all messaging and orientation information provided to new members.

EDUCATION GOAL

Education standards for entry into professional practice and for continued licensure will reflect continually evolving minimum requirements for the protection of the public.

Priority Objective

1. Lead the dialogue on the appropriate education required for initial licensure.

Strategies

- a. Develop and adopt a position statement on education required for initial licensure.
- b. Continue the dialogue with professional and technical societies related to engineering and surveying education reform.

Second Priority Objective

2. Promote and assist with the uniform adoption and application of NCEES guidelines for continuing professional competency (CPC).
 - a. Partner with professional and technical societies to promote NCEES CPC guidelines.

Secondary Objectives

3. Increase NCEES' ability to anticipate and define future educational needs.

Strategies

- a. Continue participation in and engagement with ABET. *High priority*
- b. Establish a way to be notified when member boards change education requirements (board profile). *Medium priority*

Metrics to be reviewed

- NCEES representatives are nominated to ABET board and commissions annually.
- Position statement on engineering education reform is developed and adopted by NCEES within 2 years.
- Each member board reviews and updates its respective board profile on MyNCEES within the next 12 months.