APPENDIX A:
STRATEGIC PLANNING DATA ANALYSIS

CONTENTS

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Terms:
*Emerging Theme - A fairly broad idea under which related concepts are discussed*
Related Concepts – Thoughts, ideas and suggestions categorized in association with a view or notion

STRATEGIC PLANNING DATA ANALYSIS

INTRODUCTION

This report presents a summary of qualitative data gathered during strategic planning conversations and feedback sessions conducted throughout 2018. Data were collected from various types of sessions -- *ROUNDTABLE DISCUSSIONS*, the *DIVERSITY SUMMIT*, and *FALL ENGAGEMENTS* -- which were held beginning in spring 2018 through fall 2018 and took place across geographic locations including Blacksburg, Roanoke, Alexandria, Arlington, and Falls Church. Strategic planning conversations and feedback sessions involved faculty, staff, students, alumni, and external advisory board members from various disciplines, levels, colleges, institutes, and units. These sessions focused on discussion topics including strategic priorities, key areas of focus, and challenges and opportunities from the participants' own perspectives and experiences at the university.

Figure 1. Number of Participants per Engagement
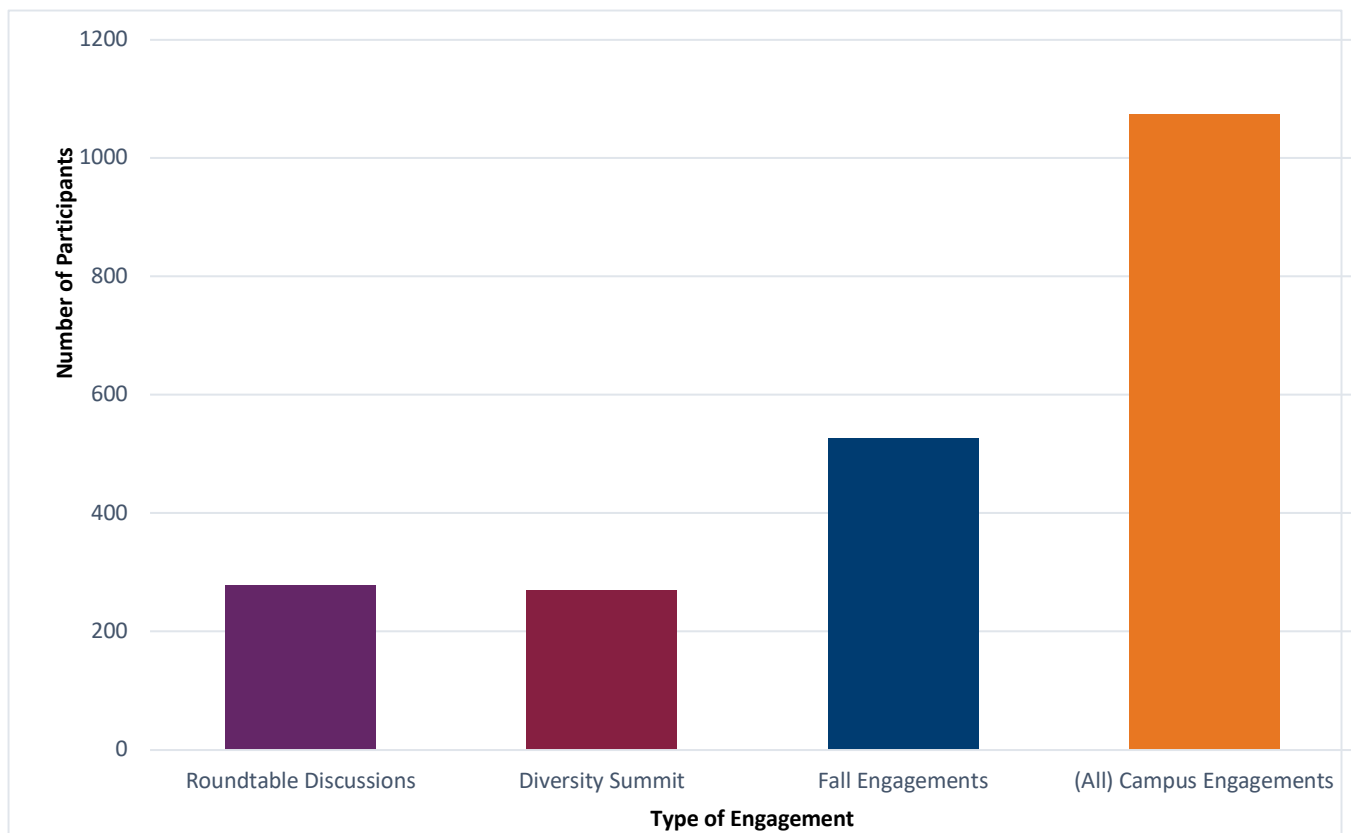
A number of faculty, staff, students, and alumni from various disciplines and at all levels across the university participated in the strategic planning conversations and feedback sessions. Of the participants who attended these events, over 1070 individuals agreed to provide feedback in various forms for which this data is based upon.

Beginning in spring 2018, the *ROUNDTABLE DISCUSSIONS* resulted in feedback from more than 275 participants from across the university community on specific topics such as advancement, student success, continuous planning, infrastructure, financial sustainability, and alumni engagement.

The *DIVERSITY SUMMIT* was a one-day event held in summer 2018 which garnered feedback from nearly 270 participants on three topics: *Ut Prosim* (That I May Serve) and teaching, *Ut Prosim* (That I May Serve) and research, and *Ut Prosim* (That I May Serve) and service.

The *FALL ENGAGEMENTS* resulted in feedback from over 525 individuals through 19 committees and councils, 37 meetings at the department and college level, 26 meetings with institute directors, and 12 open campus conversations.

The number of actual participants may have exceeded the figures cited above due to the open nature of some of these conversations, as not all participants registered in advance or wished to provide feedback.

Following each session, the raw data collected were grouped according to the type of session: 1) *ROUNDTABLE DISCUSSIONS*, 2) *DIVERSITY SUMMIT*, and 3) *FALL ENGAGEMENTS*.

The raw data were then coded line-by-line using an open coding process (Van Manen 1984; Tesch 1987; Corbin and Strauss 1990). Continual sifting and sorting of the data allowed for the identification of emerging themes, related concepts, ideas, and suggestions. In this context, an *"EMERGING THEME"* refers to a relatively broad idea under which related concepts are discussed. Data were analyzed and synthesized at two levels: an *Overview of Findings* and a *Detailed Analysis of Findings*.

The *Overview of Findings* offers the *EMERGING THEMES* from each type of strategic planning conversation and feedback session with the *MOST FREQUENT RELATED CONCEPTS*.

In the *Detailed Analysis of Findings*, *EMERGING THEMES* from each type of strategic planning conversation and feedback session are presented by *discussion topic*, with *MOST FREQUENT RELATED CONCEPTS* and *KEY IDEAS AND SUGGESTIONS* from participants.

OVERVIEW OF FINDINGS

This section offers results from high level data analysis including *EMERGING THEMES* and *MOST FREQUENTLY RELATED CONCEPTS* from participant feedback. The high level emerging themes are shown below (Figure 2) from the strategic planning campus engagements.

Figure 2. Emerging themes (in order) from strategic planning conversations and feedback sessions

ROUNDTABLE DISCUSSIONS

1. Teaching, learning, and research
2. Personal and professional growth of students
3. Streamlining functions and processes
4. Diversity and inclusion
5. Strategic use of resources
6. Increasing revenues and endowment
7. Partnership and collaboration
8. Experiential and service learning
9. Hiring and retention
10. Engaging alumni and philanthropies
11. Outreach and community engagement
12. *Ut Prosim* (That I May Serve) and service
13. Reducing cost
14. Reputation and branding

DIVERSITY SUMMIT

1. Diversity and inclusion
2. Community engagement
3. Experiential and service learning
4. Research for real world impact
5. Teaching, research, and service
6. Collaboration and partnerships
7. Innovative teaching and research
8. Strengthening capabilities
9. Rewards and incentives
10. Access and affordability

FALL ENGAGEMENTS

1. *Ut Prosim* (That I May Serve) and land-grant mission
2. Student success
3. Faculty and staff
4. Research and discovery
5. University processes and financial resources
6. Facilities, space, and infrastructure
7. Innovative teaching and curriculum
8. Diversity and inclusion
9. Virginia Tech footprint and programs
10. Technology

A. ROUNDTABLE DISCUSSIONS

Participants were asked to provide individual and collaborative group feedback via Google forms during roundtable sessions that focused on *specific* discussion topics:

- Financial Sustainability and Alumni Engagement
- Continuous Planning and Assessment
- Faculty Success
- Land-Grant Mission and *Ut Prosim* (That I May Serve)
- Undergraduate Student Success
- Graduate Student Success

From these *ROUNDTABLE DISCUSSIONS*, the following *EMERGING THEMES* (Figure 3) were defined and coded based on the *MOST FREQUENT RELATED CONCEPTS* from the participants' feedback.

Figure 3. Emerging themes from Roundtable Discussions
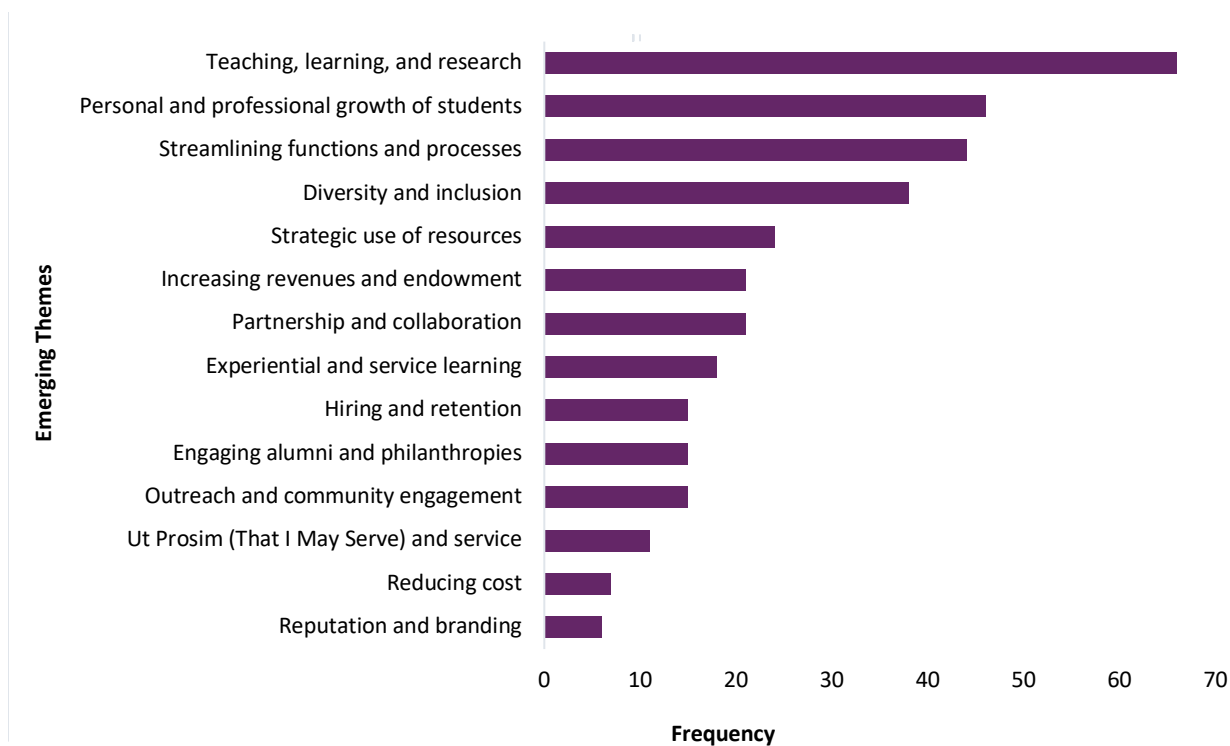
The following lists the *EMERGING THEMES* from the *ROUNDTABLE DISCUSSIONS* (numbered in bold) with the *MOST FREQUENT RELATED CONCEPTS* (in bullet points) in the order they appear in the graph:

A1. Teaching, learning, and research
- Innovative teaching and learning
- Supporting students' needs and concerns
- Advising and mentoring

A2. Personal and professional growth of students
- Integrate co-curricular and extra-curricular activities
- Develop disciplinary competence and emotional intelligence of students
- Instill self-reliance, advocacy, and efficacy among students

A3. Streamlining functions and processes
- Make informed decisions based on data; acquire reliable systems, automatic data collection, and sharing
- Provide resources to understand and operate the systems
- Conduct periodic review of administrative efforts and make the continuous assessment less onerous but meaningful

A4. Diversity and inclusion
- Diversity of perspectives, backgrounds, and experiences
- Recognizing different capacities and levels of preparedness
- Access and affordability

A5. Strategic use of resources
- Strategic enrollment management—focusing on high demand disciplines
- Strategic investment of funds—in key infrastructure and technology
- Focus on key regions and areas

A6. Increasing revenues and endowment
- Introduce differential fee structure for courses and programs with varying levels of costs
- Charge for services provided by the university and its auxiliary units
- Commercializing research outputs

A7. Partnership and collaboration
- International partnership to reduce cost
- Strategic partnership with the state government
- Offer under-enrolled courses and programs in partnership with other universities

A8. Experiential and service learning
- Integrate experiential and service learning to ensure student success
- Involve faculty in experiential learning
- Offer community-based learning opportunities

A9. Hiring and retention
- Hire faculty whose interests align with those of Virginia Tech
- Offer better compensation and incentives
- Develop better evaluation metrics for junior and collegiate faculty

A10. Engaging alumni and philanthropies
- Define engagement and set the goals of engagement
- Ensure active stewardship and meaningful engagement
- Engage with alumni and large philanthropic donors and organizations

A11. Outreach and community engagement
- Leverage the land-grant status of the university
- Engage with diverse communities; bridge the rural-urban divide
- Facilitate community and professional engagement of faculty

A12. *Ut Prosim* (That I May Serve) and service
- Integrate *Ut Prosim* (That I May Serve) and service in every aspect
- Define service and stress the importance of it
- Promote *Ut Prosim* (That I May Serve) as a brand and mission of the university

A13. Reducing cost
- Explore ways to offer online teaching and learning and outsource services to reduce cost
- Leverage private investment in facilities, equipment, and student development
- Offer under-enrolled courses and programs in partnership with other universities

A14. Reputation and branding
- Invest in research
- Improve the reputation and ranking of the university
- Focus on branding and marketing the strengths of the university

B. DIVERSITY SUMMIT

At the 2018 *DIVERSITY SUMMIT*, participants were asked to provide individual and collaborative group feedback via Google forms that focused on *specific* topics:

- *Ut Prosim* (That I May Serve) and Teaching
- *Ut Prosim* (That I May Serve) and Research
- *Ut Prosim* (That I May Serve) and Service

From the *DIVERSITY SUMMIT*, the following the *EMERGING THEMES* (Figure 4) were defined and coded based on the *MOST FREQUENT RELATED CONCEPTS* from participants' feedback.

Figure 4. Emerging themes from the Diversity Summit
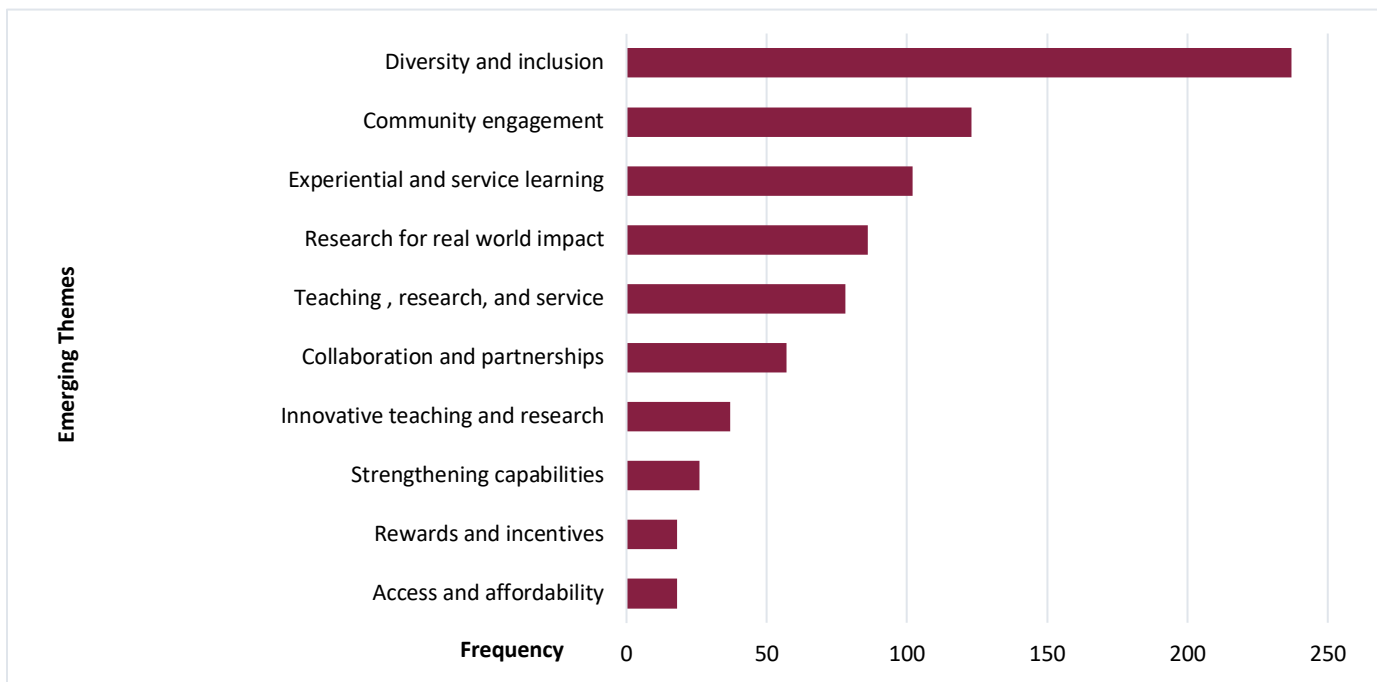
The following provides the *EMERGING THEMES* from the *DIVERSITY SUMMIT* (numbered in bold) with the *MOST FREQUENT RELATED CONCEPTS* (in bullet points) in the order they appear in the graph:

B1. Diversity and inclusion
- Diverse research teams
- Diversity among teachers, students, and staff
- Research on diverse communities

B2. Community engagement
- Outreach and community engagement for teaching and service
- Communicate research with the public
- Local community, regional, and global concerns

B3. Experiential and service learning
- Experiential and service learning in teaching
- Experiential and service learning in service
- Engage students in research

B4. Research for real world impact
- Service-focused research
- Research benefitting humanity
- Research for real world impact

B5. Teaching, research, and service
- Integrate teaching and research
- Integrate service with teaching and research
- Treat teaching as a service

B6. Collaboration and partnerships
- Collaborate within the university and other universities
- Partnership and collaboration with industry
- Partnership and collaboration with government and nonprofit organizations

B7. Innovative teaching and research
- Continuous improvement
- Radical and innovative research
- Leadership and entrepreneurship skills

B8. Strengthening our capabilities
- Funding for research
- Incentives, recognition, and reward
- Access and affordability

B9. Rewards and incentives
- Recognize good work of faculty and staff in promoting diversity and inclusion
- Reward those individuals and institutions for their contribution to diversity

- Put in place incentives for those interested in promoting inclusion

B10. Access and affordability
- Improve access
- Make Virginia Tech an affordable institution
- Offer scholarships and fellowships to those from marginalized communities

C. FALL ENGAGEMENTS

Participants were asked to provide individual and group feedback in open forums and meetings that included council, commission, and committee sessions, strategic planning presentations and discussions across numerous Virginia Tech locations, and college and unit level conversations. These discussions explored various topics including feedback on the mission, vision, core values, and strategic objectives; challenges and opportunities; key areas of focus; and open conversations on a variety of strategic planning topics.

From the Fall Engagements, the following the *EMERGING THEMES* were defined and coded based on the *MOST FREQUENT RELATED CONCEPTS* from participants' feedback.

Figure 5. Emerging themes from Fall Engagements
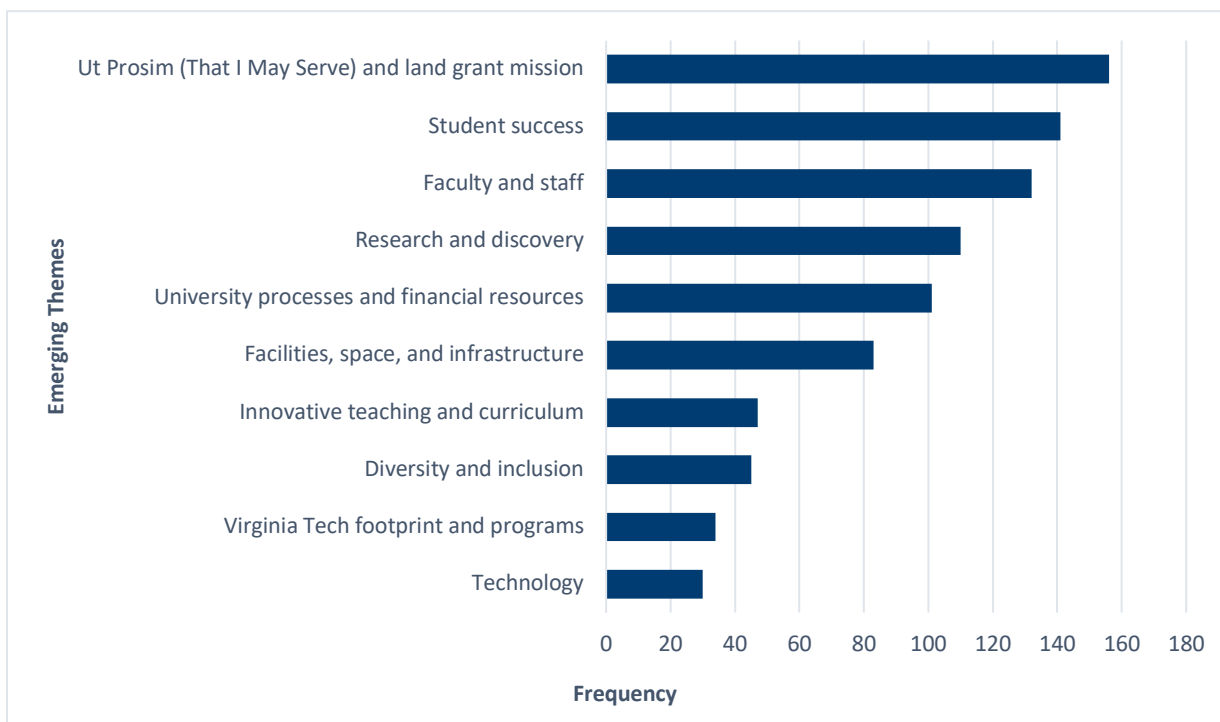
The following provides the *EMERGING THEMES* from the *FALL ENGAGEMENTS* (numbered in bold) with the *MOST FREQUENT RELATED CONCEPTS* (in bullet points) in the order they appear in the graph:

C1. *Ut Prosim* **(That I May Serve) and land-grant mission**
- Mission, vision, and image of university
- Local and global engagement
- Global land-grant

C2. Student success
- Access and affordability
- Alumni engagement
- Recruitment, retention, and support

C3. Faculty and staff
- Recruitment and retention of high performing faculty and staff
- Faculty and staff satisfaction
- More full-time tenure track faculty lines

C4. Research and discovery
- Graduate education; student participation in research
- Interdisciplinary and transdisciplinary research
- Research infrastructure

C5. University processes and financial resources
- Alternative revenue streams
- Business operations and processes
- Research funding

C6. Facilities, space, and infrastructure
- Investment in current infrastructure
- Additional space needs
- Creativity and discovery classroom or lab space

C7. Innovative teaching and curriculum
- Online education and programs
- Investment in disciplines or majors
- Interdisciplinary and transdisciplinary courses or programs

C8. Diversity and inclusion
- Diversity and inclusion as a priority
- Recruitment, retention, and support of underrepresented students
- Accessible infrastructure and technology

C9. Virginia Tech footprint and programs
- Support and resources for greater Washington, D.C., and Roanoke area locations
- Mission and vision for greater Washington, D.C., area locations
- Infrastructure in greater Washington, D.C., and Roanoke area locations

C10. Technology
- Technology infrastructure
- Human technology interface
- Technology support

DETAILED ANALYSIS OF FINDINGS

This section offers results from a deeper level of data analysis by engagement category, that include *discussion topics* followed by detailed *KEY IDEAS* and *SUGGESTIONS* from participants' feedback.

ROUNDTABLE DISCUSSIONS:

DETAILED FEEDBACK FROM PARTICIPANTS BY *DISCUSSION TOPIC*:

Participants were asked to provide individual and collaborative group feedback via Google forms that focused on *specific* topics during various *ROUNDTABLE DISCUSSIONS*. Each *discussion topic* is outlined below and includes *EMERGING THEMES* with a summarized detail listing of participant *KEY IDEAS AND SUGGESTIONS*.

DISCUSSION TOPIC A: FINANCIAL SUSTAINABILITY AND ALUMNI ENGAGEMENT

Figure 6. Emerging themes from Financial Sustainability and Alumni Engagement
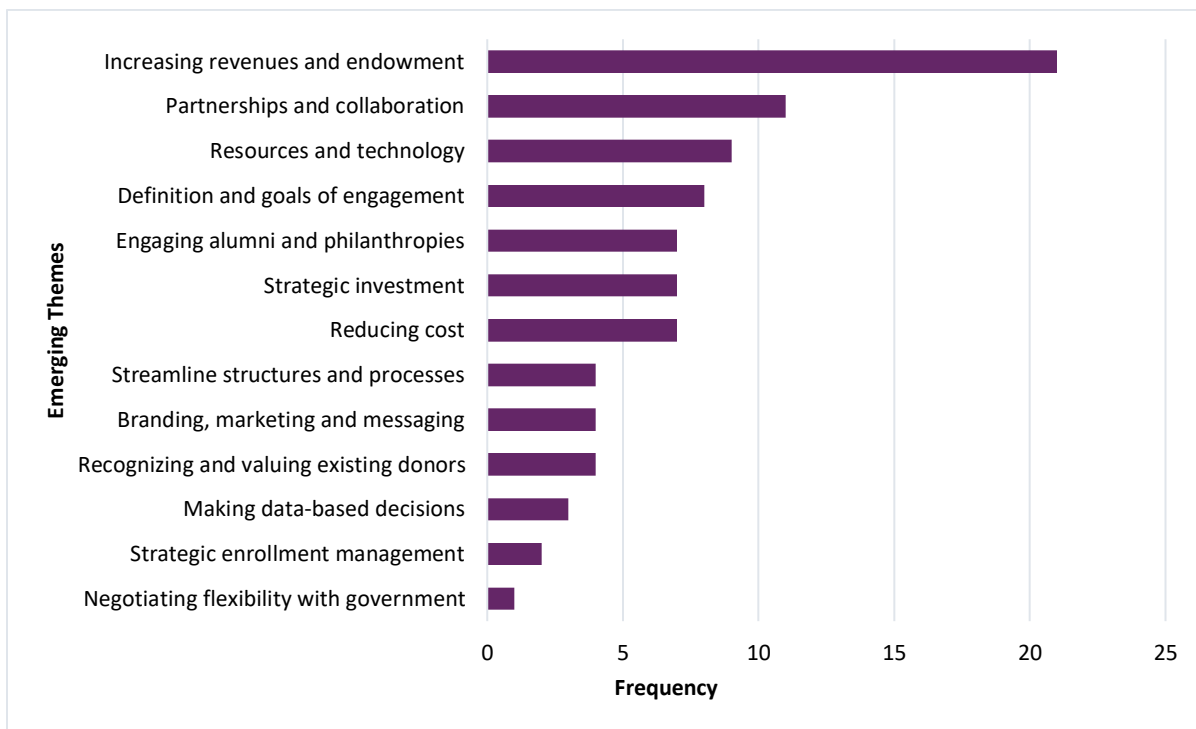
The following provides the *EMERGING THEMES* from the *discussion topic* FINANCIAL SUSTAINABILITY AND ALUMNI ENGAGEMENT (numbered in bold) with participants' *KEY IDEAS AND SUGGESTIONS* (in bullets) in the order they appear in the graph:

A1. Increasing revenues and endowment
- Increase revenue by offering more winter courses, summer courses, certificates, professional courses, and degrees
- Create professional career development opportunities for professional organizations
- Identify and focus on core programs and divest from non-core programs
- Employ adaptive business models
- Allow external parties to rent facilities and buy services from Virginia Tech
- Charge for services to communities such as those provided by extension
- Leverage public-private partnerships for new sources of revenues
- Expand interdisciplinary research opportunities for faculty to increase sponsored program grant funding
- Expand industrial and commercial partnerships that generate value; maximize investment opportunities
- Develop more efficient instructional delivery to expand customer base
- Increase return on existing assets and better use of physical, financial, and human capital
- Expand externally funded research
- Provide services to private sector agencies for fees
- Expand online and other on-demand credit courses
- Increase endowment funds and more sustainable revenues from fundraising activities
- Charge special rate/fees for programs that are more expensive and for majors that pay a higher starting salary
- Convert units away from an auxiliary model such as Printing and Fleet Services back into cost recovery units in order for those units to focus more on services the university needs rather than recovering auxiliary costs

A2. Partnerships and collaboration
- Strategic partnerships with private organizations
- Offer more professional courses and degrees in collaboration with international universities
- Collaborate with the private sector in areas of instruction, research, and outreach
- International partnership to reduce cost
- Form strategic partnerships and outsourcing opportunities with other organizations wherever possible
- Engage in strategic partnership with the state government

A3. Resources and technology
- Employ adaptive business models
- Utilize existing infrastructure optimally during non-traditional instructional time periods, such as summer, to offer both student and public programs
- Explore alternative undergraduate approaches, such as 3-year degrees, or evening degree programs
- Leverage technology and resources better
- Encourage efficiency in university administration, for instance through pay for performance
- Implement better system for budget submission

A4. Definition and goals of engagement
- Clarify what is meant by engagement
- Define financial sustainability
- Outline clear goals for engagement and financial sustainability

A5. Engaging alumni and philanthropies
- Increase philanthropic donations
- Reach out within and beyond Virginia Tech
- Encourage philanthropic investment in specific programs
- Make the process of donating to Virginia Tech easy
- Identify roles for alumni and the progression that moves them from Hokie fans to Hokie donors
- Provide engagement opportunities at every age and stage of the life of an alumnus
- Build mutually beneficial relationships with our alumni populations through continuing education, Massive Open Online Courses (MOOCS), short-term certificate programs, and similar events and programs that help our alumni sustain skills
- Active stewardship and meaningful engagement: organize targeted events and annual fund solicitations, utilize alumni expertise for specific needs of the university

A6. Strategic investment
- Invest in data privacy
- Enhance cyber security infrastructure
- Invest in innovative techniques and resources for enhancing engagement
- Invest in research to help us stay connected with and updated on alumni (where are they, how can we contact them, what are they doing)
- Invest in human capital for research and engagement
- Recognize and reward better performing divisions
- Hire and train remote staff to target alumni in different regions
- Ensure that all new models and systems will protect sensitive data
- Pursue unified systems throughout the university to enable all areas to communicate within a single system

A7. Reducing cost
- Divest from non-core programs and consider adaptive business models
- International partnerships (with Asian and European countries) to reduce cost
- Wind down programs that no longer drive the mission of the organization and are not net positive
- Contain costs: build cost structures which resist inflationary pressures without sacrificing quality

A8. Streamlining structures and processes
- Measure Virginia Tech's success and use measurement in a process of continuous process improvement
- Nurture collaboration between offices, faculty, programs, colleges, and other units
- Create opportunities for comprehensive engagement with current and potential funding sources
- Reduce confusion and redundancy

A9. Branding, marketing, and messaging
- Improve Virginia Tech's image outside of Virginia
- Invest more in research to make Virginia Tech a top 100 university
- Focus on better marketing messaging

A10. Recognizing and valuing existing donors
- Recognize and value those who care about Virginia Tech
- Thank people: let them know that see what they care about and how they've made a difference

A11. Making data-based decisions
- Work closely with Budget and Controller's Office to understand costs and resource availability and allocations for financial planning and modeling
- Invest in new technologies that will allow and enhance the university's ability to engage alumni in an effective way

A12. Strategic enrollment management
- Strategic enrollment growth - leverage nonresidents while serving Virginia's enrollment needs
- Eliminate some programs that have very low enrollment yet a high cost of instruction

A13. Negotiating flexibility with government
- Negotiate additional autonomy with the government agencies to obtain capacity to increase and manage resources

DISCUSSION TOPIC B: CONTINUOUS PLANNING AND ASSESSMENT

Figure 7. Emerging themes from Continuous Planning and Assessment
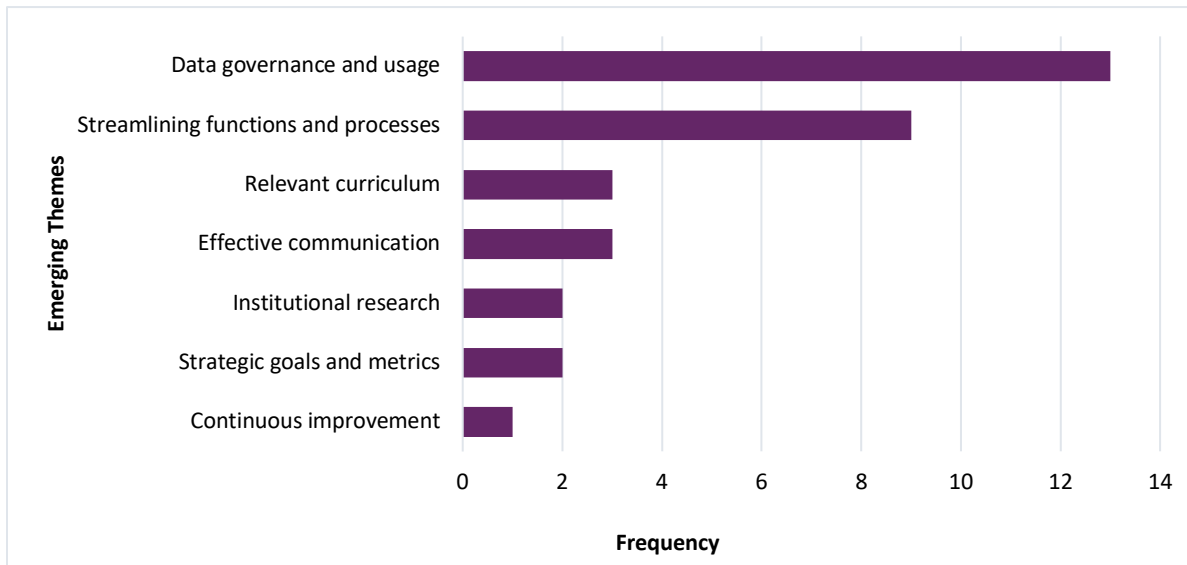
The following provides the *EMERGING THEMES* from the *discussion topic* CONTINUOUS PLANNING AND ASSESSMENT (numbered in bold) with participants' *KEY IDEAS AND SUGGESTIONS* (in bullets) in the order they appear in the graph:

B1. Data governance and usage
- Good data and data governance
- Common definitions for metadata
- Have readily available data to inform planning and assessment
- Collect and use data effectively to inform planning and make decisions about scheduling, space use, dining, and transportation
- Implement dashboards for management review
- Develop effective tools to analyze and evaluate outcomes to drive better decisions backed by data
- Enhance data access and integrity
- Use data analytics technology; increase data access and sharing; data-driven performance metrics and evaluation

B2. Streamlining functions and processes
- Research and assess operational efficiency for cost controls
- Reimagine processes and plan strategically
- Periodic assessment of academic and administrative functions leading to action plans
- Coordination with Budget and Controller and other university departments to understand costs, resource allocations, funding sources, etc.
- Streamline administrative functions, offices, structure and make efficient use of resources
- No unnecessary reporting, meaningful continuous assessment, and collection of data automatically through reliable systems
- Adopt simplified and transparent budget processes; better integration of systems and redesigning of outdated processes
- Introduce budget enterprise system
- Better coordination between teaching faculty and administrative staff; better communication between offices and departments
- Planning and assessment in academic departments and administrative units; efficient use of financial resources; assess the organizational structure to make sure that it is efficient
- Breaking down silos for better integration

B3. Relevant curriculum
- Begin with the end in mind - identify market opportunities and industry needs of university programs
- Curriculum and courses that cater to the interests and needs of the students

B4. Effective communication
- Accessible reporting
- Effective continuous stakeholder communication

B5. Institutional research
- Better align Institutional Research with the university strategic plan
- Benchmarking within and outside the higher education industry

B6. Strategic goals and metrics
- Operational and strategic goals with actionable measures
- Widespread need to understand the institution's goals and objectives to inform continuous planning
- Benchmarking within and outside the higher education industry
- Understanding the metrics and evaluation methods being used

B7. Continuous improvement
- Develop and implement a continuous improvement program across academic and administrative functions with clear objectives and realized efficiencies

DISCUSSION TOPIC C: FACULTY SUCCESS

Figure 8. Emerging themes from Faculty Success
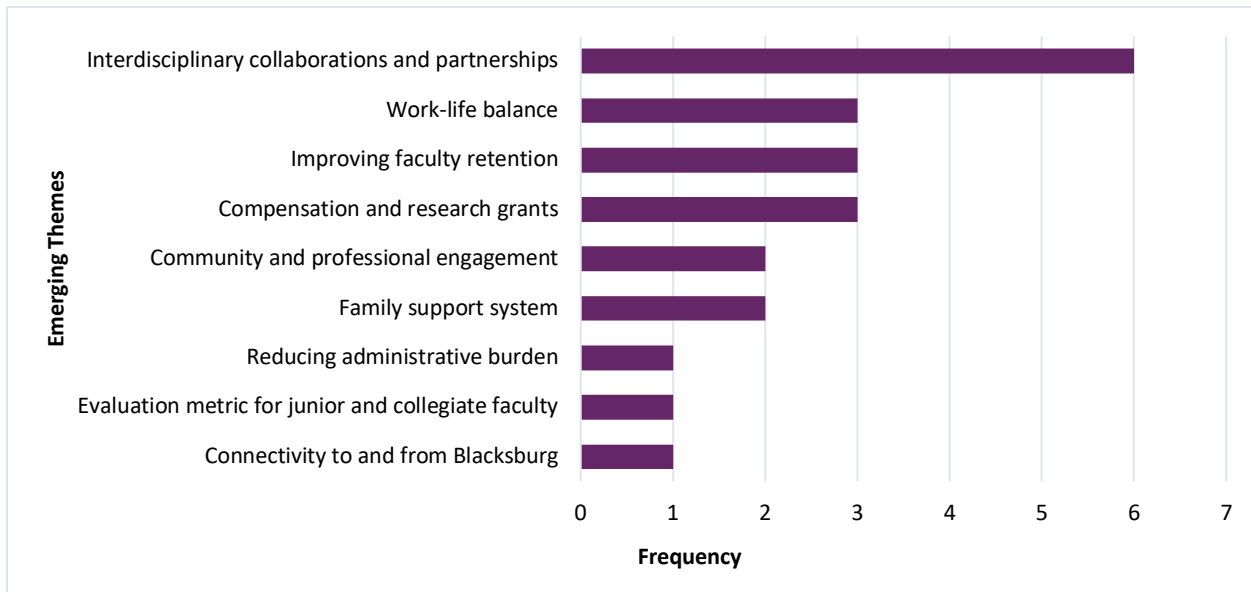
The following provides the *EMERGING THEMES* from the *discussion topic* FACULTY SUCCESS (numbered in bold) with participants' *KEY IDEAS AND SUGGESTIONS* (in bullets) in the order they appear in the graph:

C1. Interdisciplinary collaborations and partnerships
- Facilitate interdisciplinary collaborations across colleges
- Provide resources and platforms for interdisciplinary collaborations and partnerships
- Promote collaboration across disciplines with small research grants (e.g. travel grant)
- Adopt suitable reward systems for transdisciplinary research
- Provide mentoring and incentives for transdisciplinary research
- Support transdisciplinary research by offering junior leave and opportunities for co-teaching

C2. Work-life balance
- Provide more opportunities for work-life balance
- Provide research speed-dating, networking and socialization opportunities for junior faculty
- Increase faculty access to life amenities

C3. Improving faculty retention
- Provide mentoring for junior and collegiate faculty
- Provide grant development assistance to junior faculty
- Reduce administrative burden on the faculty

C4. Compensation and research grants
- To attract and retain faculty, offer better salaries and start-up packages
- Offer more research grants, especially small grants
- Provide access to some unrestricted research funds

C5. Community and professional engagement
- Provide opportunities for community and professional engagement
- Facilitate more industry and public-focused engagement
- Make the faculty stakeholders in their areas of expertise

C6. Family support system
- Provide better support to the families of faculty and staff
- Facilitate dual career options for spouses and better childcare services
- Provide access to other regions and localities

C7. Reducing administrative burden
- Reduce administrative burden on the faculty so that they can focus more on teaching and research

**C8. Evaluation metric for junior and collegiate faculty**
- Develop better evaluation metric(s) for junior faculty and collegiate faculty

C9. Connectivity to and from Blacksburg
- Make access to other cities and regions from Blacksburg easy

DISCUSSION TOPIC D: LAND-GRANT MISSION AND *UT PROSIM* (THAT I MAY SERVE)

Figure 9. Emerging themes from land-grant mission and *Ut Prosim* (That I May Serve)
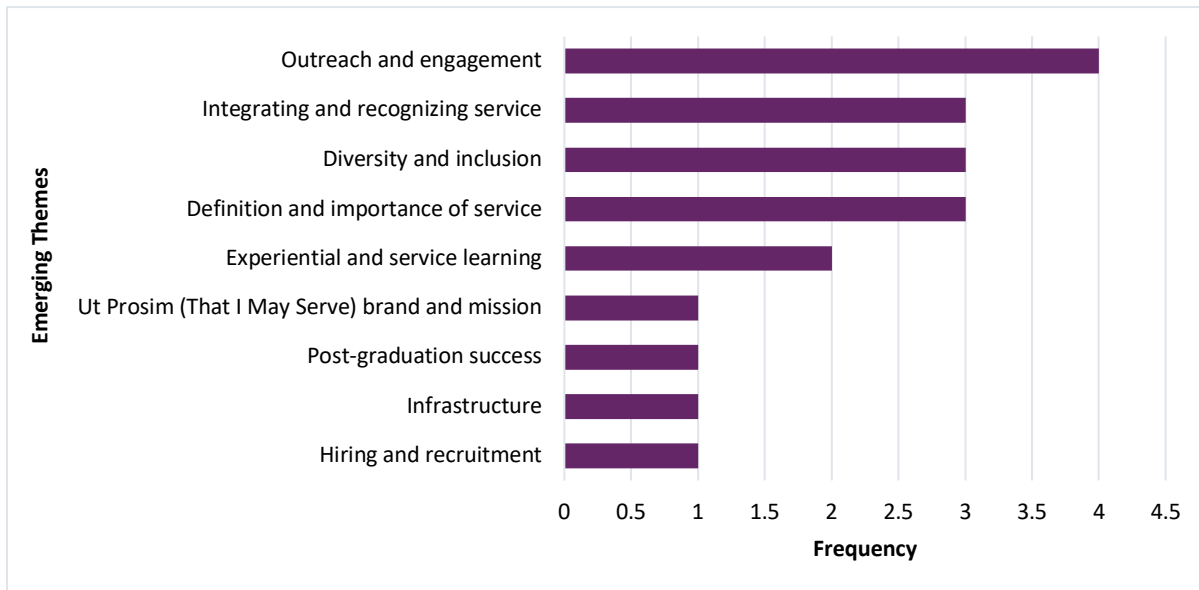
The following provides the *EMERGING THEMES* from the *discussion topic* LAND-GRANT MISSION AND *UT PROSIM* (THAT I MAY SERVE) (numbered in bold) with participants' *KEY IDEAS AND SUGGESTIONS* (in bullets) in the order they appear in the graph:

D1. Outreach and engagement
- Global footprint is the key missing component, while not giving up a regional and national presence
- Develop more research and teaching in developing countries
- Build on existing structures and relationships with Virginia communities
- Engage with rural and urban communities; bridging the rural-urban divide

D2. Integrating and recognizing service
- Integrate service with teaching and research
- Recognize existing efforts toward integrating service with teaching and research
- Include service into our evaluation criteria

D3. Diversity and inclusion
- Facilitate the enrollment of underrepresented students in Virginia Tech
- Provide access to Virginia Tech to larger and more diverse groups of students
- Ensure teams of researchers from diverse backgrounds

D4. Definition and importance of service
- Define service and explain its significance
- Let the entire campus community define *"Ut Prosim* (That I May Serve)"

D5. Experiential and service learning
- Engage students with communities through experiential and service learning programs
- Bring experiences of both rural and urban lives to the classroom

D1. *Ut Prosim* (That I May Serve) brand and mission
- Define and operationalize *Ut Prosim* (That I May Serve) as a brand and mission

D6. Post-graduation success
- Measure the success of students after graduation

D7. Infrastructure
- Fix existing infrastructure; build new infrastructure if needed to advance the land-grant mission

D8. Hiring and recruitment
- Focus on recruiting service-minded students and faculty

DISCUSSION TOPIC E: STUDENT SUCCESS (UNDERGRADUATE)

Figure 10. Emerging themes from Student Success (Undergraduate)
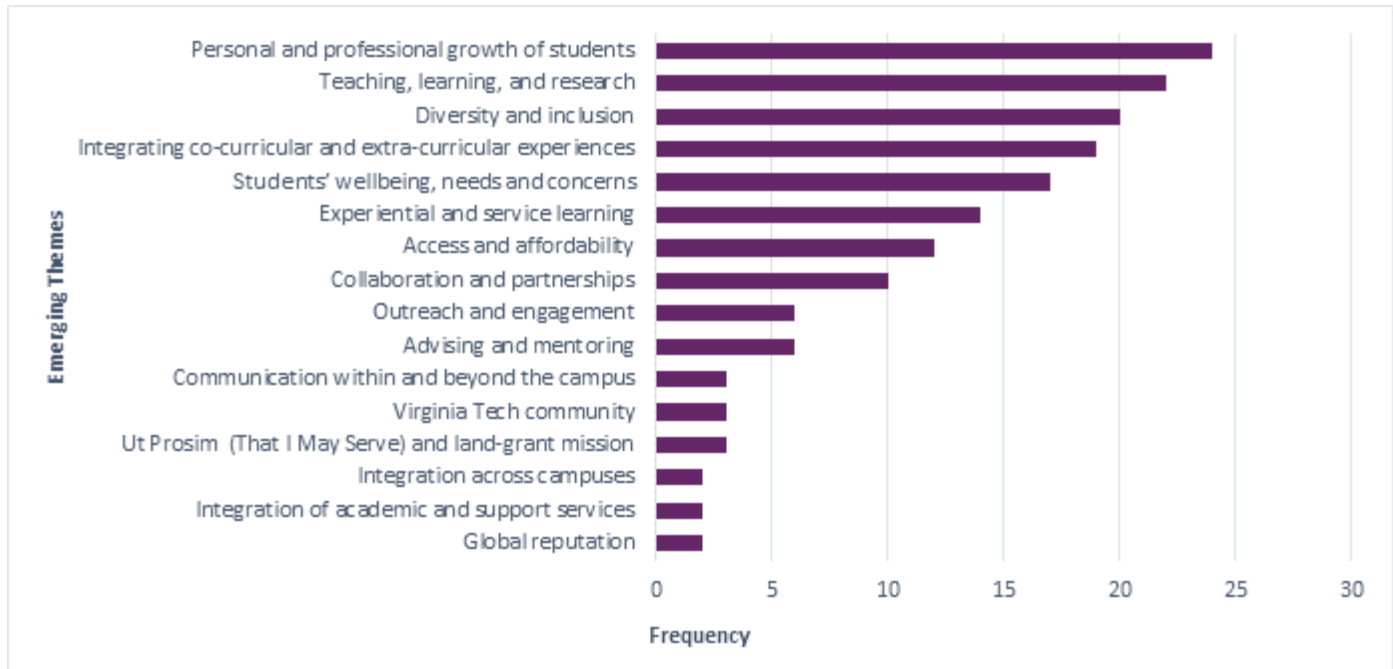
The following provides the *EMERGING THEMES* from the *discussion topic* STUDENT SUCCESS (UNDERGRADUATE) (numbered in bold) with participants' *KEY IDEAS AND SUGGESTIONS* (in bullets) in the order they appear in the graph:

E1. Personal and professional growth of students
- Accept failure; let it not be a barrier to students' success
- Developing emotional intelligence (EQ) of students
- Disciplinary competence and skills
- Foster intellectual maturity and well-roundedness among students
- Foster leadership skills
- Pay attention to post-graduation success
- Personal and professional growth of students
- Develop professional skills among students
- Focus on reasoning and critical thinking skills
- Recognize student leadership
- Develop self-reliance and self-efficacy among students
- Strengthen and enhance the scope of student success center

E2. Teaching, learning, and research
- Encourage active learning
- Encourage collaborative learning
- Introduce flexible and efficient degree system
- Create inclusive pedagogies
- Innovative teaching and learning
- Integrate teaching and research
- Focus on interdisciplinary and transdisciplinary teaching and research
- Encourage peer-to-peer learning
- Share examples of good teaching practices
- Train and nurture inspiring instructors
- Focus on the quality of teaching
- Use Education Advisory Board (EAB) data to improve the quality of education
- Allow students to explore beyond their major

E3. Diversity and inclusion
- Building inclusive classrooms
- Grow cultural competence
- Develop and conduct cultural learning program
- Take into account diversity perspectives
- Increase diversity among students
- Address unconscious bias

E4. Integrating co-curricular and extra-curricular experiences
- Integrate co-curricular experiences such as Living Learning Communities (LLCs) or First Year Experiences (FYEs)
- Engage more with Living Learning Communities (LLCs) and First Year Experiences (FYEs)
- Encourage extra-curricular activities and experiences
- Provide hands-on, minds-on experience to students
- Facilitate student participation in co-curricular and extra-curricular experiences
- Incorporate more athletics and outdoor opportunities

E5. Students' wellbeing, needs, and concerns
- Focus on students' well-being (health and wellness)
- Strengthen the Cook Counseling Center
- Pay attention to and take care of students needs and concerns
- Listen to students' voices
- Address concerns regarding "academic bullying"
- Understand different students' needs
- Support students' needs
- Pay attention to the students' interests, learning styles, and needs
- Organize well-being focused events: social, sports and physical activity, tradition-building, and outdoor adventure

E6. Experiential and service learning
- Integrate experiential and service learning activities
- Provide experiential and service learning opportunities
- Develop mechanisms to help with internships and experiential learning
- Involve faculty in experiential learning
- Engage students with service in the spirit of *Ut Prosim* (That I May Serve)
- Provide guaranteed study abroad or study away experiences
- Address financial concerns that constrain access to experiential learning
- Secure more funding to support both domestic and international learning opportunities for underrepresented students
- Encourage and facilitate community-engaged-learning
- Ensure that all students have access (i.e., knowledge about opportunities, funding) to participate in all high impact practices
- Arrange for paid internships for students

E7. Access and affordability
- Focus on access and affordability
- Implement sustainable financial support mechanism for ensuring access to experiential learning
- Provide scholarships and housing for transfer students
- Make sure that all students have access to participate in all high impact practices
- Increase financial support for students
- Provide assistantships and paid internships
- Focus on access and affordability aimed at minimizing debt load
- Provide affordable housing and health insurance
- Develop appropriate funding model for students

E8. Collaboration and partnerships
- Collaboration across the campus
- Collaboration across colleges
- Collaboration among different Virginia Tech locations
- Partnership and collaboration with governmental agencies
- Partnership and collaboration with practitioners and non-governmental organizations (NGOs)
- Partnership and collaboration with industry

E9. Outreach and engagement
- Focus on community-engaged learning
- Engage with local communities
- Extend outreach to include students' families and communities
- Allocate resources for outreach and engagement
- Conduct outreach and engagement with underrepresented communities
- Engage with global communities through study abroad program and centers
- Increase outreach to enhance Virginia Tech's reputation

E10. Advising and mentoring
- Academic advising
- Faculty mentoring
- Peer-to-peer mentoring
- Create and support mentorship programs
- Support mentors and faculty members that help students develop diverse interests

E11. Communication within and beyond the campus
- Clarity of concepts and messages across the campus
- Define student success
- Make knowledge available to the public
- Make sure that everyone is aware of the Principles of Community

E13. Virginia Tech community
- Promote a sense of belonging in the Virginia Tech community
- Uphold the Principles of Community

E14. *Ut Prosim* (That I May Serve) and land-grant mission
- Improve the human condition
- Let *Ut Prosim* (That I May Serve) permeate many of our goals
- Leverage land-grant status to engage with communities and service

E15. Integration across campuses
- Better serve students at extended campus locations
- Provide better connectivity, housing, and support system for students across different Virginia Tech campuses

**E16. Integration of academic and support services**
- Break down silos
- Integrate Academic Affairs and Student Affairs

E17. Global reputation
- Engage in research that improves the human condition on a global scale
- Global reputation is important, but not at the cost of Virginia Tech's land-grant mission

DISCUSSION TOPIC F: STUDENT SUCCESS (GRADUATE)

Figure 11. Emerging themes from Student Success (Graduate)
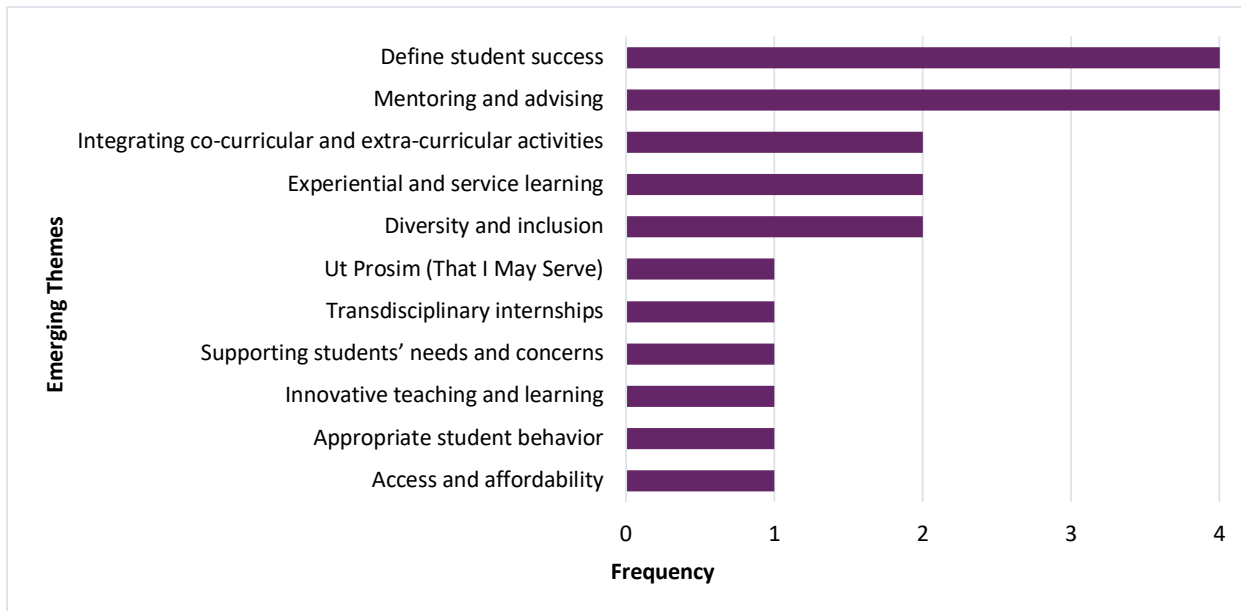
The following provides the *EMERGING THEMES* from the *discussion topic* STUDENT SUCCESS (GRADUATE) (numbered in bold) with participants' *KEY IDEAS AND SUGGESTIONS* (in bullets) in the order they appear in the graph:

F1. Define student success
- Define and clearly articulate what is meant by student success
- Take into consideration the post-graduation success of students
- Identify the barriers to students' success

F2. Mentoring and advising
- Give importance to mentoring students
- Faculty should get due credit for mentoring for promotion and tenure purposes
- Continual mentoring at each stage in their program
- Mentorship besides academic advising

F3. Integrating co-curricular and extra-curricular activities
- The integration between academics and student activities needs to be strengthened
- A combination or course work and co-curricular activities is most effective in laying the foundation for student success

F4. Experiential and service learning
- Focus on the integration of experiential learning
- Make experiential and service learning more accessible to all students

F5. Diversity and inclusion
- Try to understand the diverse motivation and life experiences of different students
- Address the serious under-representation of minorities and international scholars in certain fields
- Address unconscious bias

F6. *Ut Prosim* (That I May Serve)
- *Ut Prosim* (That I May Serve) should be transferred more seriously into practice for undergraduate and graduate students

F7. Transdisciplinary internships
- Encourage transdisciplinary collaborations through internships

F8. Supporting students' needs and concerns
- Faculty can better engage with students with a proper understanding of the background and motivation of the students

F9. Innovative teaching and learning
- Encourage collaborative teaching practices

F10. Appropriate student behavior
- Students must behave professionally and respectfully with other students, faculty, and visitors

F11. Access and affordability
- Make Virginia Tech affordable and accessible to all

DETAILED FEEDBACK FROM PARTICIPANTS BY *DISCUSSION TOPIC:*

Participants were asked to provide individual and group collaborative feedback via Google forms that focused on *specific* topics during the ***DIVERSITY SUMMIT***. Each *discussion topic* is outlined below and includes ***EMERGING THEMES*** with a summarized detail listing of participant ***KEY IDEAS AND SUGGESTIONS***.

DISCUSSION TOPIC G: UT PROSIM (THAT I MAY SERVE) AND TEACHING

Figure 12. Emerging themes from *Ut Prosim* (That I May Serve) and Teaching
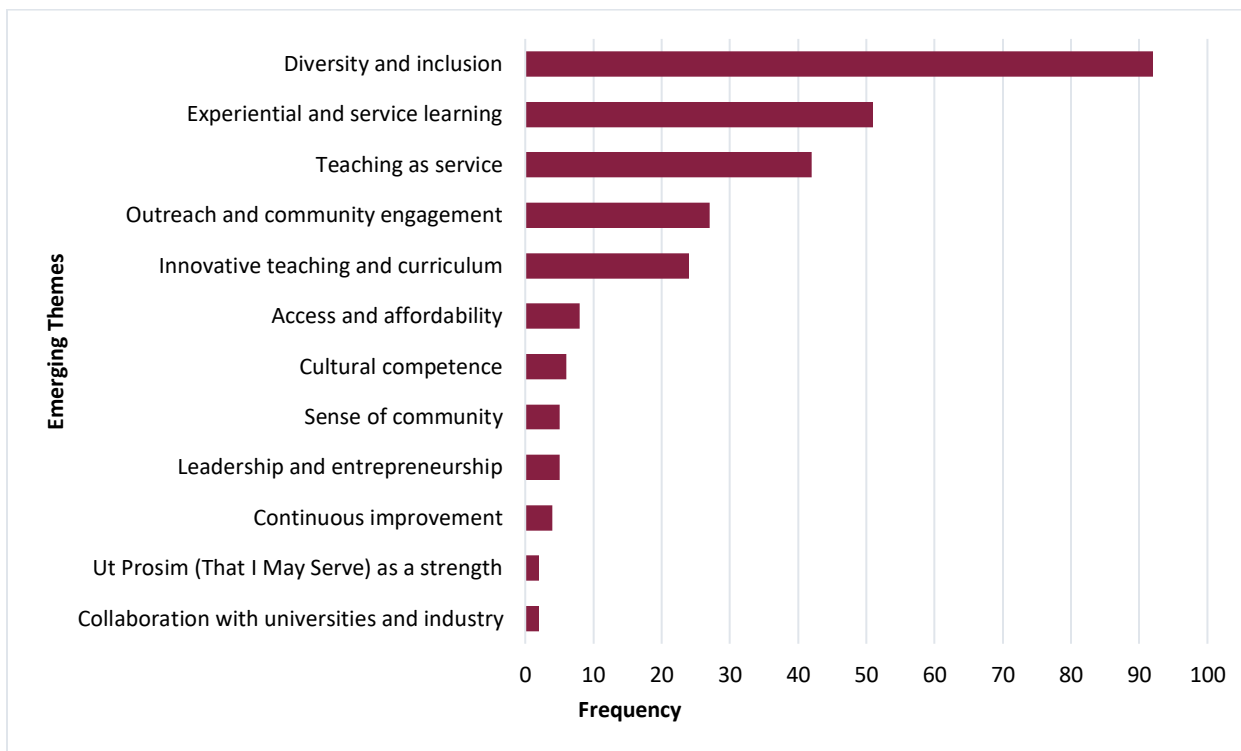
The following provides the *EMERGING THEMES* from the *discussion topic* UT PROSIM (THAT I MAY SERVE) AND TEACHING (numbered in bold) with participants' *KEY IDEAS AND SUGGESTIONS* (in bullets) in the order they appear in the graph:

G1. Diversity and inclusion
- Encourage diversity and inclusion in the student community
- Ensure that students, faculty, and staff are all committed to the idea of diversity and inclusion
- Engage students and teachers with underrepresented communities and areas in order to expose them to issues of diversity
- Strengthen partnerships with Historically Black Colleges and Universities (HBCUs); create dual degree programs with such institutions
- Integrate inclusive pedagogies into the classroom
- Listen to the students: hear the voices of the underserved, unheard, quiet students; allow them to speak out; provide inclusive and equitable education
- Enable every participant to not only survive, but to grow and flourish
- Accommodate not only needs, but also preferences
- Celebrate the diversity of experiences, voices, and perspectives
- Focus on diversity in the curriculum, and among teachers; recruit teachers from diverse backgrounds
- Eliminate violence and hatred from campus
- Focus on the systemic aspects of inequality and racism; make students conscious of "why we do what we do"

G2. Experiential and service learning
- Integrate experiential and service learning into the course curriculum; provide experiential and service learning opportunities; include capstone classes
- Focus on the goals of liberal arts education as well as job prospects after graduation
- Provide networking opportunities for entry level undergraduates
- Require all students to do either a Virginia Tech Engage program of 2-weeks or more
- Provide students a multicultural perspective: teach the students global differences through study abroad programs; give them a global perspective
- Leverage existing programs such as Pathways minors, the Virginia Tech Engage program, and living learning communities
- Integrate *Ut Prosim* (That I May Serve) into all areas of education: instill values of service into the next generation
- Include compulsory service in every class; value service as a component in the college application
- Provide funding and facilitate experiential learning; more specifically service learning and study abroad
- Allow a semester doing service; integrate service at each stage: admission, orientation, academic, and social lives
- Service experiences should be measurable and enforceable for faculty and staff

G3. Teaching as service

- Teach well so that students become good engineers and professionals to serve the needs of diverse communities
- Focus on students' learning goals and needs; work on the idea of the "whole student," get to know the students, and teach them to make them successful
- Recognize and incentivize quality teaching; incentivize excellence in teaching; give importance to teaching quality in tenure
- Teachers should give students new perspectives
- Allow the voices of non-tenured faculty to be heard; provide better support for pre-tenured faculty members
- Teaching and training should be focused toward the idea of "improving human condition"
- Bridge the knowledge gap among students; take the diversity and different backgrounds of students into account; focus on the students' needs; make them successful in a global economy
- Provide equal education to students from all backgrounds; facilitate an appreciation of diversity in the classroom
- Promote evidence-based teaching strategies
- Make sure that all faculty and graduate teaching assistants embrace *Ut Prosim* (That I May Serve) within their teaching values; instill a spirit of service in them
- Encourage two-way communication in the classroom; mentor students to help them develop the skills that they will need to succeed in our modern technological society
- Encourage student-centered teaching practices; establish personal connection with students; don't let technology distance students from teachers

G4. Outreach and community engagement

- Increase outreach and community engagement across the state of Virginia; leverage the land-grant status; make use of Virginia Cooperative Extension (VCE) offices
- Engage in cultural and educational exchange programs with other universities such as, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Asian American and Native American Pacific Islander-Serving Institutions (AANAPISIs), Native American-Serving, Nontribal Institutions (NASNTIs)
- Science and Engineering departments can engage in "scientific literacy"
- Encourage diversity of knowledge and perspectives; create purposeful integration and space for people of different backgrounds to work together
- Teach cultural diversity by taking students out to different communities; teach in the community settings; offer outreach-based learning as a requirement
- Promote engagement and community outreach regionally and globally; while national and global outreach is important, the university should focus on the Appalachian region
- Require students to become engaged in helping to solve community issues and industry problems
- Recruit from the neediest communities; build bridges to Haiti, Bangladesh, Rwanda and other poorest countries
- Focus at two levels: individual communities that need attention and the university as a community and what it can do
- Take science to communities; teach about and engage with Appalachia; engage with the communities to identify their needs
- Position VT Engage as a center to coordinate with various departments and institutions
- Connect the rural and the urban Virginia

G5. Innovative teaching and curriculum
- Focus on interdisciplinary problems and facilitate collaborative learning: encourage peer to peer mentoring; create mentoring programs where diverse matches are emphasized
- Use technology to improve content delivery and outreach
- Modify traditional delivery methods - instead of lectures, use active and participatory learning methods in every class; adopt alternative teaching methods such as online, flipped, and/or hybrid classes
- Teachers should provide the context and a purpose while teaching
- Introduce course observers to visit and give feedback
- Encourage participation from students; offer discussion-based courses
- Focus on critical thinking and real-life problems; teach critical thinking; focus on individual growth
- Establish English as second language (ESL) classes
- Place students in diverse groups in a range of "problem spaces" so that they can understand the problem and devise solutions
- Inspire fresh minds with the help of our star researchers
- Invite global perspectives from students while teaching
- Make students stakeholders in course development; use culturally relevant classroom examples
- Find alternative means and cheaper ways to disseminate information so that students with limited resources can access the information
- Challenge students to be bold in terms of thought, action, and perspective
- Provide platforms, assignments, projects, etc. at the intersection of disciplines and cultural identities
- Encourage learning in a problem space or vocational area; provide students with spaces for deep interaction with other students, faculty, and external audiences

G6. Access and affordability
- Make Virginia Tech affordable and accessible to all students irrespective of their backgrounds; provide accessible and affordable education to all Virginians
- Allocate adequate funding to make experiential learning feasible for all
- Provide generous scholarships to ensure access and affordability
- Make education accessible to the underrepresented population

G7. Cultural competence
- Grow cultural competencies among faculty; teachers should be taught diversity and curriculum diversification services should be provided to them
- Include cultural learning in the curriculum: teach in the community settings
- Grow cultural competencies among the faculty, staff, and graduate assistants
- Train faculty and staff on engaging with diverse students and accommodating cultural differences

G8. Sense of community
- Develop and nurture a sense of community
- Promote the "Principles of Community"
- Teach students to abide and uphold the "Principles of Community"

- Enforce the "Principles of Community"

G9. Leadership and entrepreneurship
- Virginia Tech should become a leader in service learning
- Become a role model for other universities to follow our example
- Teach soft skills such as empathy, teamwork, and communication
- Foster entrepreneurship
- Develop leadership; teach students from all backgrounds in ways that will prepare them to be successful leaders in the world

G10. Continuous improvement
- Don't stay static, update constantly - curriculum, support groups, and activities; ensure continual innovation
- Introduce course observers to visit and give feedback; encourage participation from students
- Continue to improve diversity on the campus and sustaining the improvement is also important

G11. *Ut Prosim* (That I May Serve) as a strength
- Highlight *Ut Prosim* (That I May Serve) as a strength
- Students should be able to explain the meaning of *Ut Prosim* (That I May Serve) to prospective employers
- Develop a Pathway minor around this topic - *Ut Prosim* (That I May Serve)

G12. Collaboration with universities and industry
- Follow other excellent universities as role models
- Crowd source problems from industry to train students

DISCUSSION TOPIC H: UT PROSIM (THAT I MAY SERVE) AND SERVICE

Figure 13. Emerging themes from *Ut Prosim* (That I May Serve) and Service
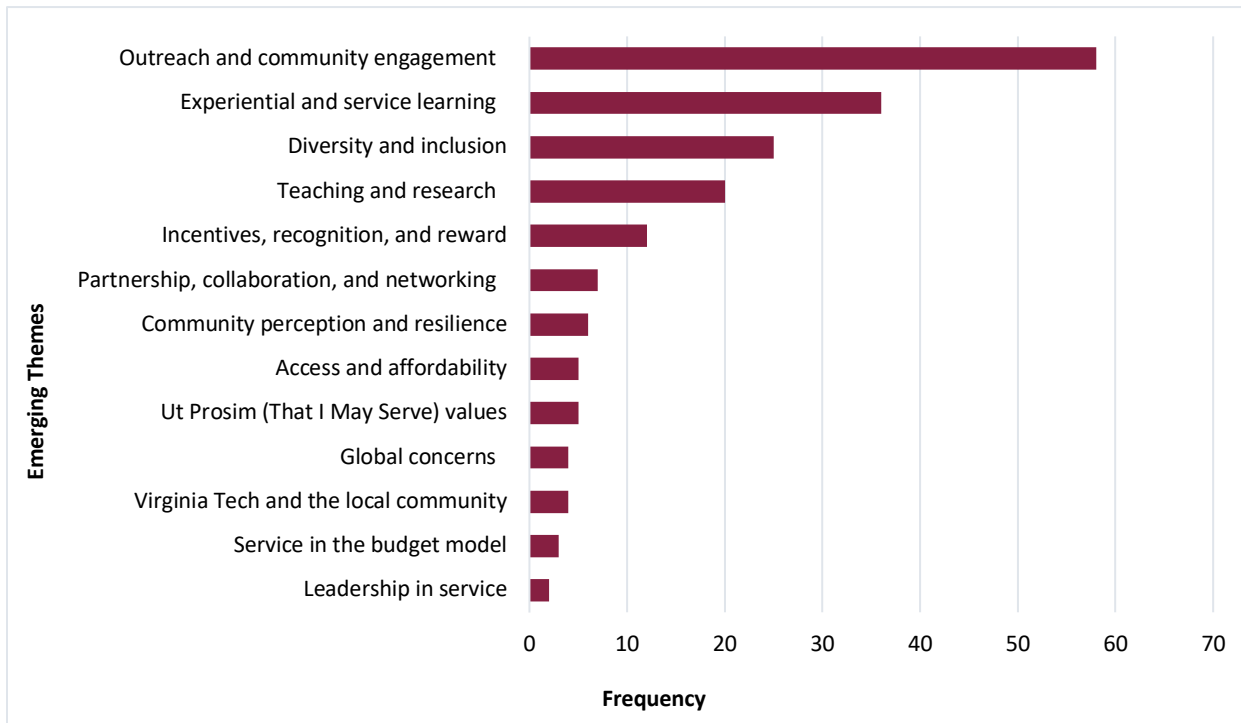
The following provides the *EMERGING THEMES* from the *discussion topic* UT PROSIM (THAT I MAY SERVE) AND SERVICE (numbered in bold) with participants' *KEY IDEAS AND SUGGESTIONS* (in bullets) in the order they appear in the graph:

H1. Outreach and community engagement
- Engage with communities both locally as well as globally; engagement with communities, not providing service for them
- Focus on low income communities; reach out to underrepresented communities; intentionally use engagement of underserved communities to enhance diversity
- Capitalize on the land-grant status of the university; leverage Virginia Cooperative Extension (VCE) to expand outreach activities
- Capitalize on the land-grant status of the university
- Ensure involvement of Virginia Tech community – engage faculty, staff, and graduate students
- Declare a "Virginia Tech service day" and close the university operations for a day so that everyone can participate in service
- Create suggestion boxes and digital platforms to invite ideas from the community
- Make annual faculty service to minority institutions (for example, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Asian American and Native American Pacific Islander-Serving Institutions (AANAPISIs), Native American-Serving, Nontribal Institutions (NASNTIs)
- a requirement
- Engage in the regional sustainability and development issues of Southwest Virginia
- Reach out to high schools; engage well-qualified high school teachers; prepare and promote STEM high school teachers

H2. Experiential and service learning
- Engage the entire Virginia Tech community (students, faculty, staff) in service
- Many comments emphasized the need for integrating experiential and service learning with the curriculum, a few comments encouraged participation in experiential and service learning by keeping it voluntary; [experiential and service learning] "should not be a mandatory requirement but be a voluntary choice … most people resent being told to accomplish something that they have little to no interest in"
- Evaluate, recognize, and promote the existing service activities going on at Virginia Tech
- Set a goal(s) for community service and experiential learning
- Identify the strengths and weaknesses of service activities at Virginia Tech to help make further improvements
- Documenting and recording our service accomplishments is important; ensure critical evaluation and reflection on existing service programs

H3. Diversity and inclusion
- Focus on diversity and inclusion in the Virginia Tech community so that we can serve diverse communities better: pay attention to diversity and inclusiveness when hiring new faculty, staff, and students
- Provide robust funding and support for the cultural and community centers, and remove all barriers to success
- Address imbalance of power issues; promote social justice; ensure restorative justice
- Create a mechanism to address the concerns of minority and/or marginalized students
- Create "safe places" where students from diverse backgrounds can go and share their feelings and concerns
- Highlight our cultural diversity as a strength
- Develop cultural competence among students and faculty members before they take on a service project

H4. Teaching and research
- Strengthen and highlight the link between teaching, research, and service and community engagement
- Focus on student outcomes; focus on educating students to help them become better members of society; encourage graduate students to become citizen scholars
- Engage well-qualified high school teachers; prepare and promote STEM high school teachers
- Communicate science (innovation and research findings) to the community outside of Virginia Tech
- Clinical service (undertaken by the Virginia Cooperative Extension program) should be given credit as basic science research
- Provide training and nurturing to recent graduates

H5. Incentives, recognition, and reward
- Find exemplary faculty and staff on campus who are contributing to service and recognize their work
- Provide scholarships and fellowships to promote service
- Include service in the hiring, promotion, and tenure decisions

H6. Partnership, collaboration, and networking
- Form internal collaborations within and across the campuses for service; promote intra-university collaboration to integrate service learning with the curriculum
- Form partnerships with diverse stakeholders such as universities, (for example, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Asian American and Native American Pacific Islander-Serving Institutions (AANAPISIs), Native American-Serving, Nontribal Institutions (NASNTIs) high schools, and prisons to expand outreach and community engagement

- Strengthen partnerships with the local community to genuinely serve them

H7. Community perception and resilience
- Consider the perspectives and feedback of the Virginia Tech community regarding what kind of service should be done and how it should be done
- Take the perspectives of the outside community about how Virginia Tech is serving the community
- Highlight Virginia Tech's institutional resilience as a strength
- Focus on strengthening the resilience of underrepresented communities

H8. Access and affordability
- Virginia Tech should be accessible for all communities
- Promote Virginia Tech as a non-elite institution
- Provide scholarships to students from low-income and underserved communities
- Remove barriers to access and participation

H9. *Ut Prosim* (That I May Serve) values
- Inculcate a service and civic mentality among students, teachers, and staff
- Equip students with rich "lived experiences" through experiential learning and a sense of "service ethic;" serve with humility
- Make efforts to remove our own biases, instill value-based behavior, and declare a "Virginia Tech day of service"
- Engage in service in true spirit, not to show off; do service with humility
- Big Event –some comments highlighted that this event brings the community together for service and engagement, while other comments suggest that this event should not be upheld in the name of service; "the institution MUST … reimagine ways [in which] we are harming and helping inequality, access, and success of communities"

H10. Global concerns
- Expand the definition of service
- Take *Ut Prosim* (That I May Serve) to address global issues (for instance, focus on global health concerns)
- Engage with communities both locally as well as globally

H11. Virginia Tech and the local community
- The university should engage more with the local community
- Strengthen its partnership with the local community
- Implement, uphold, and protect the Principles of Community proposed in 2005
- Continue to foster the relationship between students and the community
- Organize more events such as the Big Event and Food Pantry and engage more with the YMCA

H12. Service in the budget model

*Appendix A: Strategic Planning Data Analysis*

- Allocate adequate funding toward implementing service goals
- Reallocate scholarships to accommodate the needs to low income students and promote diversity
- Include service and engagement in the Partnership for an Incentive Based Budget (PIBB) model

H13. Leadership in service
- Innovate, collaborate, and strategize to become a leader in community engagement and service
- Create leaders for positive change
- Reach out to communities, make connections and alliances, and educate others outside of the Virginia Tech community about the *Ut Prosim* (That I May Serve) Difference
- Integrate service into our curriculum and all of our activities, and engage the entire Virginia Tech community (students, faculty, staff) in service

DISCUSSION TOPIC I: UT PROSIM (THAT I MAY SERVE) AND RESEARCH

Figure 14. Emerging Themes from *Ut Prosim* (That I May Serve) and Research
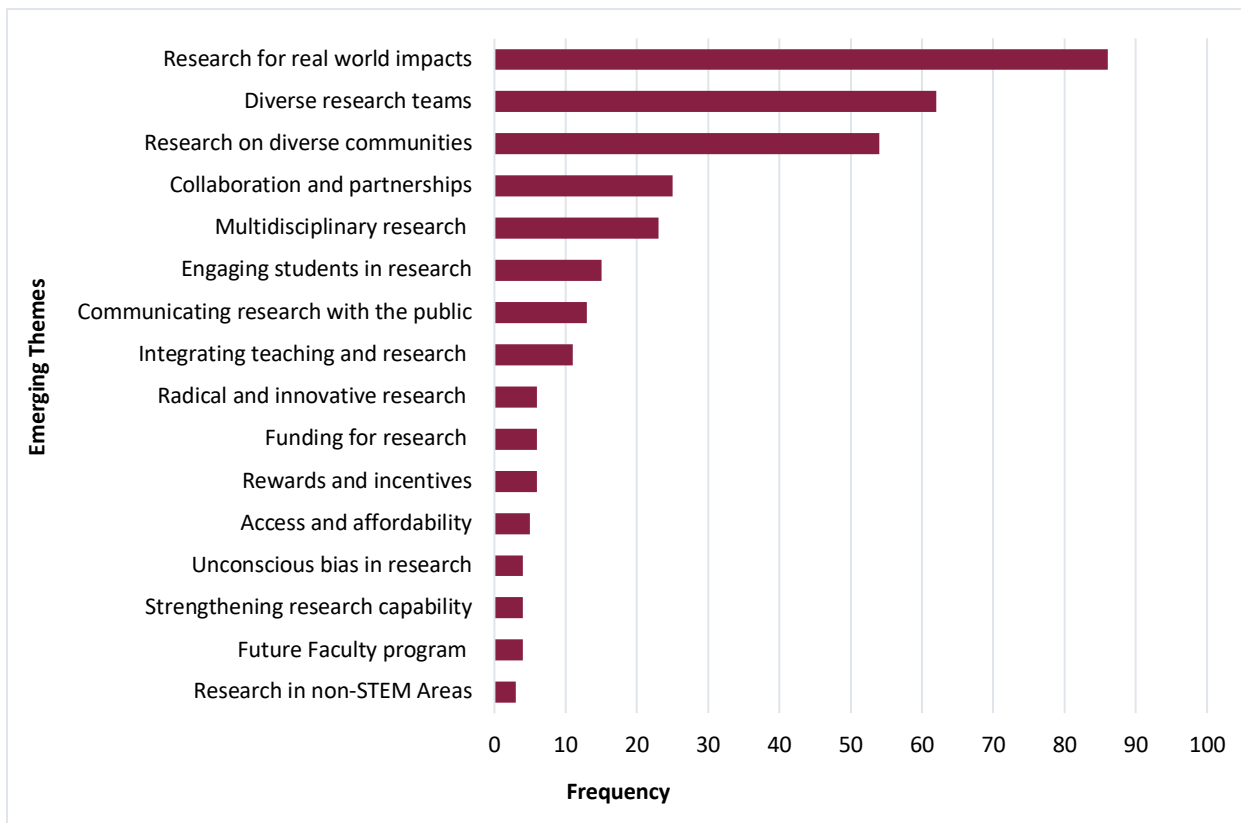
The following provides the *EMERGING THEMES* from the *discussion topic* UT PROSIM (THAT I MAY SERVE) AND RESEARCH (numbered in bold) with participants' *KEY IDEAS AND SUGGESTIONS* (in bullets) in the order they appear in the graph:

I1. Research for real world impact
- Focus on a portfolio of critical, important and challenging world problems
- Conduct translational research that has the potential to affect conditions for real people; translate our research results into policy decisions and actions on the ground
- Focus on improving the human condition, ethics, and policy and law; prioritize research that addresses advancing human condition
- Perform research related to diversity and inclusion to diversify the university's research portfolio
- Promote research as a community effort
- Pick research topics and questions whose outcomes will directly impact the general populace
- Consider research projects that address the needs of humanity – food, water, shelter, health, environment, education - and that truly help our world become a better place for all people
- Conduct research that helps to improve the quality of life
- We must immediately do what we can to save the human species from extinction; seriously pursue (environmental and social) sustainability research

I2. Diverse research teams

- Attract, retain, and reward a diverse research faculty
- Promote diversity among teachers, post-doctoral researchers, and students
- Include diversity and inclusion as criteria for hiring, promotion, and tenure
- Pay attention to diversity in terms of gender, race, ethnicity, nationality, experiences (fresh as well as experienced researchers), physical abilities, marginalized groups, rural, urban, low income, etc.
- Allow diversity of perspectives; ensure diversity in recruitment; make research inclusive and increase the number of underrepresented students in research
- Incorporate diversity into different research disciplines; recruiting students from Historically Black Colleges and Universities (HBCUs)
- Recruit international students from regions beyond the developed world; engage international students in research and take their perspectives into account
- Require a minimum percentage of researchers from underrepresented communities in research grants and proposals
- Expand creativity of our research through the creation of diverse research teams
- Make our research labs truly inclusive, this will lead to more innovative discoveries
- Perform research related to diversity and inclusion to diversify our research portfolio
- Focus on diversity and collaborative learning
- Promote successful research performed by underrepresented faculty, as it encourages other researchers and allows students to see role models in them
- Greater pursuit of graduate students from underrepresented populations, as well as postdoctoral fellows, can help build the pipeline of future research professionals and a more diverse professoriate

I3. Research on diverse communities

- Conduct research to identify and address the needs, concerns, and problems of underrepresented and underserved communities
- Enable, encourage and reward research in diversity and various aspects of society, starting with the Commonwealth of Virginia
- Continue to lift up our regional and local obligations as a land grant research university located in Appalachian Virginia
- Grow the meaning and scope of Virginia Cooperative Extension (VCE) at Virginia Tech to potentially engage every researcher to tackle complex questions faced by our society
- Give each of us the opportunity to be an extension agent for a limited period
- Before hiring faculty ask them how their research will complement the university in the areas of diversity and inclusion
- Recruit students that are passionate about diversity and inclusion
- Consider and include issues of diversity and disparities in all research questions and design
- Require all Destination Areas to include components of social equity and how differences can be addressed
- Make sure that all stakeholders (including members of impacted communities) are at the table in terms of identifying major research initiatives at Virginia Tech
- Engage with underserved communities on research projects
- Researchers should aim to embrace the little-known complex problems that are challenges for our local communities
- Identify research projects that can be worked on by a group of researchers from different perspectives
- Engage in critical service learning- using community-identified needs as a basis for a lot of the research we do
- Work with communities "to help them develop self-efficacy for a problem that they are facing "
- Research should focus on impacting the lives of underrepresented communities
- Require at least one research project/activity centered on positively affecting change in diverse communities within a specified period

I4. Collaboration and partnerships
- Focus on Virginia Tech research and scholarship across colleges and institutes
- Collaborate for funding (with government agencies, voluntary agencies, with industry partners)
- Collaborate with other universities within the state (Virginia); do not compete with them
- Collaborate with international partners
- Increase partnerships with minority-serving institutions (for example, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Asian American and Native American Pacific Islander-Serving Institutions (AANAPISIs), Native American-Serving, Nontribal Institutions (NASNTIs)
- Continue our partnerships with Historically Black Colleges and Universities (HBCUs) for the Multicultural Academic Opportunities Program (MAOP) Summer Research Internships
- Collaboration within university: engage higher educational administrators in research for research partnerships with other universities
- Focus Virginia Tech research and scholarship across colleges and institutes

I5. Multidisciplinary research
- Adopt a cross-disciplinary approach to research; incentivize interdisciplinary collaborations in research (for example, sustainability research, climate change research, improving quality of life)
- Bring Big Sticky projects; engage multiple Historically Black Colleges and Universities (HBCUs), departments and/or disciplines in such projects; combine disciplinary and inter/trans/multi-disciplinary approaches to those challenges
- Focus on "wicked" or complex problems that require multi- and inter-disciplinary collaborators; such approaches will build necessary appreciation for diversity
- To help solve socioeconomic issues, issues of poverty, issues related to bias, etc. should be a focus of some of our Beyond Boundaries (i.e. across disciplines) research
- Allocate resources for research into the Destination Areas (DAs) and Strategic Growth Areas (SGAs)
- Solve complex problems that span traditional disciplinary areas and impact a variety of communities
- Build focused teams for transdisciplinary research and have them propose their research initiatives

I6. Engaging students in research
- Involve undergraduate students in research; find more ways for undergraduate students to engage in research
- Involve graduate students in research; involve graduate students in research as mentors
- Diverse communities of students should be engaged in research; support students with disabilities in research

I7. Communicating research with the public
- Communicate science to the public; establish effective communication between researchers and non-researchers
- Allow open access and wider sharing opportunities, provide (and value) alternative platforms for access and sharing research; make research available to the public
- Communicate what research is and why it is important; make sure general public understands research and its value to improving life for all
- Show examples of how research is a humanistic endeavor and show that it is ultimately for the benefit of society
- Publicize the College of Engineering outreach activities, and increase the outreach activities to meet the needs beyond engineering programs
- Value alternative platforms to communicate science with the public

I8. Integrating teaching and research
- Integrate research in every discipline; balance teaching and research
- Research should inform teaching, research should not be done at the cost of teaching
- Teach in the context of research, rather than research at the cost of teaching
- Make research required for all undergraduate majors
- Provide undergraduate and graduate research assistance
- Encourage researchers to take risks and engage in non-traditional research projects

I9. Radical and innovative research
- Researchers should be bold, not afraid of failures, take risks; engage researchers in challenging topics
- Open up new ways of thinking; create problem/discovery space
- Focus on innovative research areas such as quantum computing, nano-earth
- Take up "big sticky problems" to which significant resources of people, space, time, and money will be devoted

I10. Funding for research
- Look for funding opportunities beyond the federal agencies; collaborate with different agencies and the industry for funding
- Look for funding and support research on diversity related issues; provide funding for diversity research to faculty members
- Provide funding for translational research or research with real world impacts; provide funding for research travel

I11. Rewards and incentives
- Recognize and reward excellent researchers
- Reward faculty who build diverse research groups
- Incentivize interdisciplinary collaborations in research
- Senior level administrators could provide funds for research-based service learning

I12. Access and affordability
- Make research accessible for all communities
- Make sure that researchers from all communities can participate in research

I13. Unconscious bias in research
- Acknowledge researchers' possible bias, researchers should be cognizant of their unconscious biases and how they affect their methodologies and dissemination of results
- Summarize results from diverse viewpoints
- Consider things like training on unconscious bias in research and reporting

I14. Strengthening research capability
- Hire the best researchers; support and help junior faculty; help junior faculty secure research grants
- Improve abilities to work with international partners/consultants; in terms of payments, remove barriers
- Identify where our strengths overlap with our ambitions and push those areas - with money, with hires, with support

I15. Future Faculty program
- Have bridging post-docs to jumpstart faculty placements
- Use our facilities to be a magnet for diverse talent; recruit passionate researchers
- Focus on attracting postdocs in the Future Faculty program

I16. Research in non-STEM areas
- Invest more in social science research that is focused on some real-world problems, while integrating that with our expertise in STEM
- Conduct research in areas beyond STEM, such as the impact of diverse business on the US economy and the impact of diversity within corporate supply chains
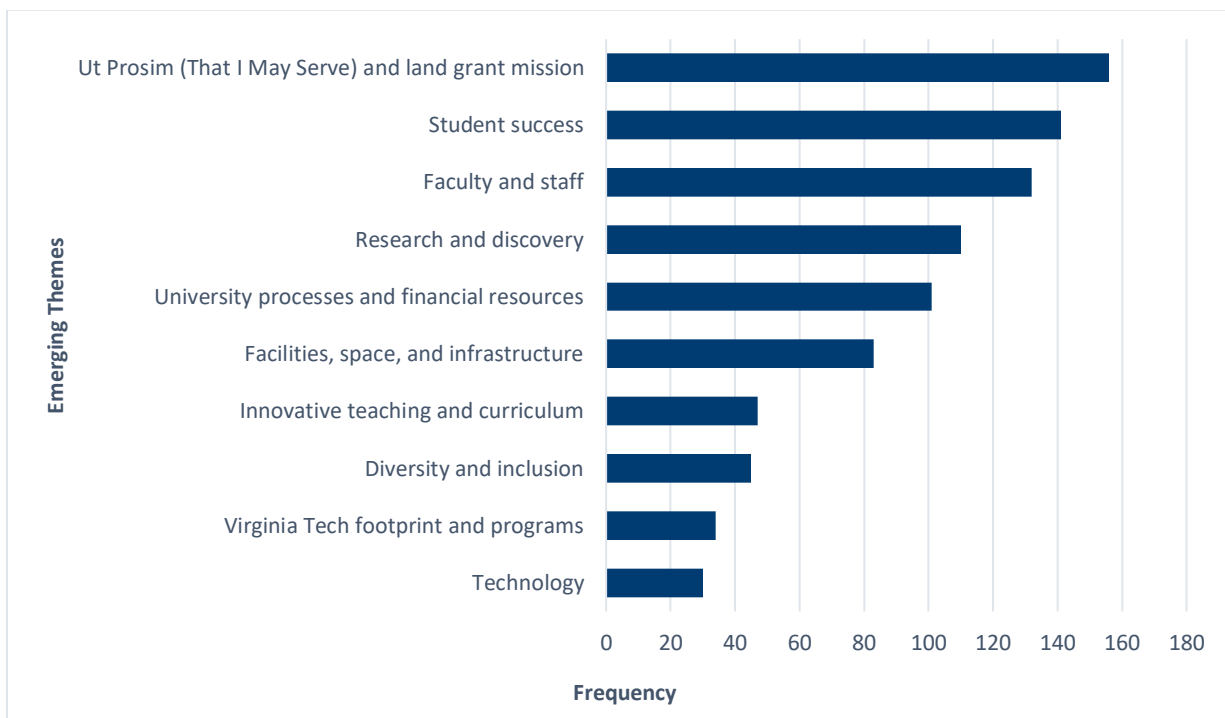
FALL ENGAGEMENTS:

DETAILED FEEDBACK FROM PARTICIPANTS IN OPEN FORUMS

Participants were asked to provide individual and group collaborative feedback from open forums and meetings which included council, commission, and committee meetings, iterative strategic planning presentations across university locations, and college and unit level discussions. Feedback from the *FALL ENGAGEMENTS* is outlined below and includes *EMERGING THEMES* with a summarized detail listing of participant *KEY IDEAS AND SUGGESTIONS*.

Participant feedback from all of the *FALL ENGAGEMENTS* were combined and included conversations associated with the draft mission, vision, core values, and strategic objectives; challenges and opportunities; and strategic planning key areas of focus.

Figure 15. Emerging themes from Fall Engagements

The following provides the *EMERGING THEMES* from the *FALL ENGAGEMENTS* (numbered in bold) with participants' *KEY IDEAS AND SUGGESTIONS* (in bullets) in the order they appear in the graph:

1. *Ut Prosim* (That I May Serve) and land-grant mission
- Supporting local teachers
- Lifelong learning
- Service to humanity and society
- *Ut Prosim* (That I May Serve) within curriculum
- Economic impact
- Partnerships and relationship building
- Mission, vision, and image of university
- Outreach and engagement
- Local and global engagement
- University wide participation in engagement projects
- Maintain student enrollment percentage for land-grant funding
- Urban and rural divide
- Global land-grant mission
- Opening resources (library, etc.)
- Virginia Cooperative Extension (VCE)

2. Student success
- Program marketing
- Student engagement
- Access and affordability
- Recruitment, retention, and support
- Incentives for timely graduation
- Graduation rates
- Experiential learning
- Alumni engagement
- Parent and family engagement
- Transfer student processes
- VT-shaped experience for students
- Small class sizes
- Corporate engagement
- Career network or employment
- Bus transportation access after 5pm
- Housing
- Student fit
- Good citizenship and civility

3. Faculty and staff
- Faculty engagement
- Recruitment and retention of competitive and talented faculty and staff
- Equitable and competitive faculty and staff compensation
- Faculty and staff satisfaction
- More full-time tenure track faculty lines
- More staff lines
- Reinvent dual career program
- Investment in staff
- Staff engagement
- Childcare for employees
- Reduced or free tuition for children of employees
- VT-shaped experiences for faculty and staff
- Work-life balance
- Employees versus faculty and staff nomenclature
- Professional development for employees
- Recognition of staff
- Family support and maternity leave
- Faculty collaboration
- Staff retention in dining services

4. Research and discovery
- Student research opportunities
- Interdisciplinary and transdisciplinary research
- Building relationships for research
- Applied research
- Graduate education
- Interface between colleges and institutes
- Flying cars
- Research infrastructure
- Startup funds

5. University processes and financial resources
- Research funding
- Continuous planning
- Alternative tuition models
- Alternative revenue streams
- Business operations and processes
- Capital funding processes
- Partnership for an Incentive Based Budget (PIBB) model
- Organizational culture
- Reevaluate tenure process
- Stadium Woods preservation
- Town and gown relationship

6. Facilities, space, and infrastructure
- Creative and discovery classroom or lab space
- Additional space needed
- Investment in campus facilities
- Investment in current infrastructure
- Natural history museum or exploration or apartments for visitors
- New center or institute
- Parking
- Space committee and space survey
- Shared equipment
- Accessible infrastructure

7. Innovative teaching and curriculum
- Interdisciplinary and transdisciplinary courses or programs
- First year seminars
- Team teaching
- Updated teaching model
- Online education and programs
- Service embedded into curriculum
- Investment in disciplines or majors (Beyond Boundaries)
- Virginia Tech Climate Action Committee

8. Diversity and inclusion
- Recruitment, retention, and support of underrepresented students
- Recruitment, retention, and support of underrepresented faculty and staff
- Funding for diversity hires
- Social justice and equity issues
- Diversity and inclusion as a priority
- Cultural centers
- International students and support
- Accessible infrastructure
- Additional funding for underrepresented minority students
- Majority student engagement in diversity efforts

9. Virginia Tech footprint and programs
- Mission and vision for the greater Washington, D.C., area
- Support and resources for the greater Washington, D.C., area
- Faculty and Staff compensation specific to the greater Washington, D.C., area
- Infrastructure in the greater Washington, D.C., area
- Collaboration with Roanoke area
- Virginia Tech India
- Steger center
- Support and resources for all Virginia Tech campuses

10. Technology
- Human technology interface
- Data and data usage
- Technological solutions
- Data security
- Technology infrastructure
- World leaders in technology
- Technology support

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