Subcommittee 1: Faculty Professional Development and Effectiveness in Research (BOV: Genovese and Murray; Convener: Kerry Abrams, Provost Office)

1. Where are we at/what have we found

Our two committees, “PI Effectiveness” and “PI Professional Development” involve overlapping topics. We decided that could more productively be combined into one committee.

We discussed the scope of the two committees and decided that focusing just on PIs is too narrow. "PI" isn't a job title; it's a role that faculty play, and the university wants to make it easier for more faculty to successfully play this role. The overall umbrella comment was, “We need to provide an infrastructure so that any faculty member who wants to be a PI can become one and be successful.” So we are now the Faculty Professional Development and Effectiveness in Research Subcommittee.

We decided it would be important to refer to a standard set of steps in the grant process that the committees refer to in common. We thought we could start with the circular process chart that was presented at the last Board meeting.

We then used those key steps in the grant process to create a grid with the following columns:

1. Column 1: Each step in the award process
2. Column 2: Current State – what is UVA doing well? (Some of these resources are pan-university; some are in the individual schools or departments.)
3. Column 3: Planned future state: what projects have we launched to improve?
4. Column 4: Additional activities that need to be offered to aid in the success of

2. Recommendations to move forward/what actions or interventions are needed

We plan to meet on the morning of March 3 to discuss our draft chart and identify additional items, especially for Column 4. Since we have not yet met before creating this summary, we may identify additional interventions or actions. So far, however, our draft chart identifies the following:

- **Infrastructure:** The most significant improvement that could be made to improve faculty effectiveness in research is improved infrastructure and grant support. Therefore, the improvement of the staffing and structure of OSP, the continued roll-out of ResearchUVA, and the development of ResearchNet will be critical to supporting faculty research effectiveness. We realize that there is another sub-committee devoted to this subject, but want to underscore its relationship to effectiveness.

- **Internal investment in research.** Another significant improvement would be expanded financial support for research. This includes indirect support, such as through course loads that permit time to conduct research, and service assignments that do not dominate a faculty member’s effort. This support also includes direct support mechanisms, such as seed funding for projects that are not yet developed enough to receive external funding, and additional funding for graduate students. There have been recent SIF proposals funded in
the latter area; there is more we could do support faculty in the others.

- **Professional development.** We currently offer many professional development activities for faculty (a semester-long leadership development program, the Center for Teaching Excellence) but could do much more to support faculty research development. This could include sessions on effective grant writing as well as training faculty in how to effectively use the many new research tools the university is developing.

3. How do we get there/What do we need to do?

- Continue supporting the infrastructure efforts that have already begun
- Ensure that the new VPR and pan-university institutes have resources for providing incentives for experimentation (seed funding, internal fellowships)
- Continue to develop new SIF proposals for graduate education, postdoctoral fellowships, research infrastructure development, etc.
- Develop new professional development programs focused on research through Provost-VPR-School collaborations
  - How do we measure?
    - Increase in total grant dollars is a good metric for overall improvement in STEM
    - Recent COACHE survey identified research support and interdisciplinary research as weaknesses; we will re-survey faculty in 2020 and will be able to compare to our 2016 data as well as to peer institutions

2A RESEARCH PRIORITIES (BOV: Walker; Convener: Parrish, VPR)

**STATUS:** A separate quarterly report of Institutional and Emerging Priorities has been developed and is available from VPR. This report will be updated on a quarterly basis.

**PLAN GOING FORWARD:**

The areas identified as those of institutional priority and emerging priorities will be the focus of special VPR and Advancement support:

- **ResearchNET support for determining externally supported grant opportunities and development of major proposals.** ResearchNET, in conjunction with the respective leaders of the identified priorities, will triage their efforts to focus on high probability, early win opportunities.

- **Joint focus on philanthropic and foundation support opportunities between leaders of institutional priority areas and central Advancement team.**
2B COLLABORATION: (BOV: Solenski; Convener: Brown)  TD = Trans-disciplinary

1. **The Data Science Institute (DSI)** is one example, leap-froging over other tier one research universities. Targeting areas of research with the *most dramatic impact* remains key;

2. **Biomedical Engineering and the School of Medicine** successes can be expanded upon in innovative ways (School of Architecture – healthy living spaces; Curry School of Education – STEM and gender stereotypes, BME -Curry Kinesiology – Biorobotics;

3. Many examples nontraditional research pairing exist: Ex: Environmental Politics; A&S/ENG 9 schools “Resilience Forum”; Strong international collaboration: UVA participation in Germany’s MAXNET Energy, a initiative of the Max Planck Society; UVA Global’s joint program supporting collaborations with Brazilian partners; Center for Global Health.

4. Emerging creation of academic consortiums –northern Va Inova campus/VTECH partnership

5. Robust participation in statewide research efforts; SCHEV/Va Research Resources Consortium/Va Coastal Energy Research Consortium etc

6. Launching of THRIV – Translational Health Research Institute in Virginia - multischool commitment

**CHALLENGING AREAS/RECOMMENDATIONS:**

1. **Novelty of Joint appointments:** Cluster hires – need streamlined well-defined HR hiring approach/process; current cumbersome, controlled by one school and department with a varying degrees of success; funding sources central issue

   a. **Recommendations-Hiring Process:**

      i. *Create focused Task Force to review current joint appointment/cluster hires with each school orchestrated by the Provost Office* (deep dive analysis of what is working/what is not from faculty, departmental and dean level; time-sensitive with short deliverable time)

      ii. *Educate HR on current P&T practices*; allow for “out of the box” concepts such as hiring from industry related research;

      iii. *Create contract letters with specific language allowing for X% time/effort for “outside” department research; must be clear, flexible language to allow for emerging scholarship (new discovery leads to innovation); require letters be reviewed and mutually updated at faculty annual review* (see below P&T section)

      iv. *Involve more departments in cluster hires and to encourage interdisciplinary work. Create incentives from the Provost/VPR or externally (state initiatives etc). Work with VEP & COO team/Deans/Chairs to review if % overhead should return directly to the investigator to reinvest in their research.*

      v. Flexible lab space plans prior to large critical hires – being nimble to create appropriate space

2. **Promotion and Tenure process:** Needs to be more flexible to promote interdisciplinary work.
a. Recommendations: Tenure and Promotion practices

i. Ensure good mentoring/guidance esp. to new junior level of joint hires to ensure they are meeting the expectations of both departments (and not getting “caught in the middle” and potential retention risk)

ii. External constraints - since external peer reviews are required, a different model of assessment may be needed; allow candidate to identify 3-4 leaders in their area of research appropriate to review their work

iii. P&T Committee should include (directly or in consultation) successful senior transdisciplinary faculty to more fairly represent the review process for the candidate

iv. Medicine provides examples of flexing the tenure system. For example, “time off the tenure clock” no penalty time – slower ramp up time due to complexity of “meeting goals of two masters”

v. Consider offering a template from the Provost office of the TD hire to promotion process/possible approval

1. HIRE to OFFER LETTER to P&T Guidelines to ANNUAL REVIEW to POPULATION OF THE INTERNAL P&T COMMITTEE to SELECTION of LETTERS for P&T

3. Financial Sustainability Models for Institutes: small seed money/resources for nimble hiring “top researchers” is challenging

i. Endowment critical focus: consider focused TD Advancement “team” assigned to TD (new hire?)

ii. Review other revenue streams: course work/degree/teaching funds flow; overhead recovery to Institute or directly to investigator

4. Promoting TD Collaborations: Take into consideration different school/departmental cultures, expectations and support systems; better connect people who are successful.

a. Recommendations:

i. Incentives to Dean (in turn to departments) to think broadly where fields of research are evolving (Ex: digital history collaborating with DSI data mining resources); success is a part of Dean “benchmarking”

ii. Consider combining departments to reduce administrative overhead and for allowing a fuller complement of faculty (faculty must be aligned with goal) to allow some faculty to explore research

iii. Create data infrastructure that supports collaboration. The DSI and VPR office are working on this and have a framework for its development.

iv. Create a live updated map to connect institutions and researchers shows the geography of research within and OUTSIDE the University e.g., foreign countries; external facing could be marketing tool

v. Share annual research reviews with faculty

vi. Graduate instruction supports research in many schools – produce similar collaborative TD grad level teaching models

vii. Create large spaces for intellectual exchange (concept of TD Innovation Center – central location)
viii. Requesting SCHEV, or UVA create competitive Faculty Awards for “most impactful/influential TD work”

b. Recommendations: EXTERNAL Collaboration

i. Increase knowledge and access to new academic consortia, such as northern Va Inova campus/VTECH partnership;
   1. UVATODAY good venue/high readership; ensure departmental chairs share successes across their school;
   2. Continue expansion VPR website to include all external collaborations with live links to “get involved” contacts

3. Provide timely/direct Faculty access to Virginia state initiatives/opportunities/information – such as CITI (http://www.cit.org/initiatives/iems/research-and-development/), or http://www.schev.edu/index/institutional/grants/va-research-investment-fund-committee

3A – Research Space Needs (BOV – Solenski; Convener – Minturn, Provost Office)

Where are we, what have we found:

- Completed and submitted a preliminary report in December 7, 2016. This report detailed research space by location, school and quality. Also identified opportunities for growth along with each school research space strategy.
- Met as a team with Chair of the Buildings and Ground Committee Kevin Fay on February 6th,
  - Reviewed the findings of the December 7th report.
  - Discussed research space considerations that cut across individual schools and buildings:
    - Centers/clusters of research on Grounds: On Grounds research will be best arranged around 2 or 3 centers of gravity.
    - Organization by research likely to be themes, rather than traditional departmental model. Population of research clusters similarly likely to be organized by research themes.
    - Distance and travel time must be made to disappear. Robust transportation is a prerequisite to research success, and to bringing students into the labs.
    - Robust amenities for researchers and clinicians are expected and are a requirement for hiring and retention
    - Collaboration among multiple schools is no longer radical, it is expected. It will be included in the present round of research strategy and space planning.
    - For the next few years the UVA research enterprise will be anchored at the Central Grounds clusters, Health System, Fontaine, Whitehead.
  - Mr. Fay noted that it would be most helpful to B&G for the team on research space to develop a high level report on research space, taking a view across the University. A rough version done soon would be more useful than a polished version in a year. Questions to address would include:
• Research space portfolio and condition by School and rollup by University – tabular and mapped
• Analysis of portfolio: Useable as-is, suitable for renovation as research space, OK for continued use as-is, Recommended for down-purposing.
• Sponsored research and hiring: existing and target; by time, school, and by University
• Need for quality research space to meet sponsored research and hiring goals. Gap analysis between demand and supply. By school and across University.
• Research Clusters: locations, themes, proposed building assignments, renovations, new structures. Mapped and tabular. By cluster and across University.
• Implementation timetable. Will not be definitive, but a sketch version will be included.
• Elements of a transportation plan

Recommendations to move forward:

• Team initiatives
  o Develop the high level, cross University model Mr. Fay requested for B&G Committee.
  o Develop a high level report on research facility status and needs for humanities, social sciences, professions. Gather info from A&S, Architecture, Library, Darden, Law.
  o Benchmarking. Emphasis on facility strategies for trans-school and trans-discipline collaboration. Also, best practice in research facility design for flexibility and quality of workplace experience for researchers.
  o Report on research facility planning initiatives that are planned for 2017 in the normal course of business. These include:
    ▪ Collaborative planning
      • Medical School, A&S, SEAS, Curry: Fontaine Translational Research Building.
      • SEAS, A&S, Medical School, Curry: Analyze need for new space at Whitehead Road
    ▪ SEAS - Plan for research strategy, space needs and capital investment roadmap.
    ▪ A&S - Update space needs with revised hiring numbers. Plan for Physics.
    ▪ Curry - Complete research strategy, space needs plan, and capital investment roadmap.
    ▪ Fontaine Research Park – Master Plan, Transportation Plan connecting Fontaine, Health System and Whitehead Road research clusters.
    ▪ West Complex – Master Plan for decanting and re-use. Planned 2017 project by Office of the Architect.

How do we get there:

• For the High level model of cross University research facilities and Survey report on research facilities for humanities, social sciences and professional schools: We anticipate
this can be done internally, between the Office of the Architect, Provost Office and Facilities Management. Target June 2017.

- Benchmarking. We anticipate Internet benchmarking by team members perhaps augmented by consultants working on active projects and studies planned for 2017.
- Research facility planning initiatives in 2017 will be staffed by the sponsoring schools, Offices of the Architect and Provost, and consultants.

**How do we measure:**

- We envision using two existing tools to do most performance measuring of completed work:
  - Post Occupancy Surveys
  - Reports from the Facilities Management GIS system
- We would tailor these tools as needed to measure both hard metrics such as: research space condition, ASF per PI, Sponsored $/ASF. Also “soft” measures of workplace quality: informal spaces, availability of food, access to health facilities, transportation, parking.

**What questions to ask of aspirational peers**

- Although we already have benchmarking on the to-do list for our team, we can develop questions on specific metrics.
- It may be valuable to use contacts with aspirational peers to learn about best practice in research space strategy and planning: How have they programmed for collaborations, precincts, industry partnerships? How have they incentivized or rewarded productive behaviors? What are examples of policies and designs that worked well. How have they measured outcomes?

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**3B Research Infrastructure (BOV – Lateef and Solenski; Conveners – Hutchins and Barker)**

There has been a delay in the maturity of the UVA Research Infrastructure, resulting in misalignment with our vision to be a highly competitive and progressive research university. While recent progress has been made, we must position ourselves to support both current research and its anticipated swift growth over the next century. In particular, computational research infrastructure is rapidly advancing and in need of continual updating. All areas of our research enterprise require complex research administration, modern and efficient centralized resources with recognized refurbishment plans. Maintaining our competitive edge is best achieved through consistent research infrastructure funding sources. In addition it is critical to recruit outstanding graduate students, and ensure a rich research experience to our undergraduate students.

**Where are we?**

**Challenges:**

- Under-investment in computational infrastructure for modeling, simulation, and analytics (needs to be shared, centralized, consistently refurbished with a sustained funding model)
- Lack of sufficient support for cyber/IT security for research.
- Disadvantaged in terms of research administration workforce availability and qualifications (not in a major metropolitan area; limited pool of applicants)
- Research administration tools in progress, being built/adopted “work in progress”
- Under-investment in research development support and insufficient infrastructure/support
for cross school research development (services - review research proposal, develop web resources, conduct funding opportunity searches, provide proposal writing workshops, offer bridging support)

- Lack of strategic view of research as a key element in exceptional undergrad education
- Insufficient support for grad student researchers – critical element of research

Progress to Date:
- VP of IT and others (DSI) have begun implementing computational infrastructure on a limited scale, relying heavily on grants for funding.
- Improvements in efficiency of research administration processes have been implemented and all aspects have been a major focus of Organizational Excellence in partnership with OSP, VPR, and the schools. Analysis of procurement/single source providers, automation of paper to electronic conversion; IRB application process etc.
- OSP is developing a critical and well-received funding management tool, ResearchUVA; VPR’s office is supporting commercial research discovery tools, Pivot and GrantForward (licensed).
- Creation of ResearchNet expanded research development support
- Initial expansion and improvement of research/experiential learning for undergrads and to grad student programs.
- Standing up the Translational Health Research Institute of Virginia, “THRIV”, to facilitate cross grounds translational health related research, strengthen existing external state partnerships and training programs for health researchers
- Specific school-led efforts to expand research/experiential learning for undergrads and continued support for improvements to research grad student and fellowship programs.

Recommendations to move forward? How do we get there/What do we need to do?
- Develop a grounds wide enterprise strategy for computational infrastructure, including a sustainable funding budget/model (create permanent “backbone” budget). VPIT, VPR, and Provost
- Develop a grounds wide strategy for IT security for research. VPIT, OSP, ITS, Provost, VPR
- Continue building out of ResearchUVA (pre-, during, post-award and agreement tracking ) OSP
- Improve recruiting strategies for Research administrators/staff including engaging with broader economic development plans (job training/certificate programs such as those in the VA Community College system). OSP and HR
- Completion of ResearchNet implementation and expansion of facilitated interactions/events related to key cross-school research areas. VPR and Research Deans
- Continued expansion of research/experiential learning for undergrads (matching lab mentors to students, support for diversity efforts), and improve and expand grad student programs School-Led Initiatives
- Secure a Clinical Translational Science Award (submission by summer 2018) with matching funds to increase NIH clinical trial monies through the THRIV program SoM (SEAS Co-PI and broad collaboration)
- Promote modern clinical trial management (online database) tools (required for CTSA) in the SOM clinical trials office VP IT and Rick Skinner
- Analyze external “best practices” at peer institutions for efficiency of scale, and ROI for both financial and reputation gains (leads to more contracts/private foundation funding/philanthropy investment/patents/industry partnership shared costs) VP IT, OSP, and VPR
**How do we measure?**

- Annual faculty research needs assessment: Is current computational infrastructure able to meet growing needs? What is our recruitment success of external research candidates from other successful institutions? Do they turn down an offer due to infrastructure concerns?
- Tabulating #s of qualified applicants for research administration positions; when hired is there retention? Assess any training programs (partnership with local community colleges)
- Are we providing research development support comparable to other institutions?
- Are research administration tools (ResearchUVA, discovery tools) being utilized? Meeting needs?
- Measure "soft" and hard research productivity – increase in peer-reviewed scholarship (books/digital humanities projects), federally funded and other competitive awards, increased ability to collaborate internal or external to UVA
- Review faculty COACH survey results for improvements in research related questions (3 year assessment)

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**3.D. Innovation (BOV - Murphy; Convener – Wasserman)**

Summary of working group activities and findings thus far:

- There are many seed funding program across the institution. These vary among schools and from central administration (esp. VPR), with the research-intensive schools having the most mature programs (College, Curry, Medicine).
- The group developed a draft document considering how research core facilities help to drive projects supported by seed funding. Schools might promote core utilization by including "block grants" for core use within seed awards.
- The group developed a second draft document describing various measures of return on investment (ROI) from seed funding. Such awards might be measured reasonably soon via their impact on participating trainees, securing follow-on research awards, and oral and poster presentations of preliminary results. Over the longer term, ROI can be measured in terms of scholarly written works and the development of intellectual property.
- The group also considered the seeding of both translational research and the commercialization process. There exist at UVA several funding opportunities (e.g., Coulter, Biomedical Innovation, UVA Seed Fund) and other internally and externally supported support programs (i.e., iLab, NSF iCorps Sites, respectively).
- The group also reached out to four other working groups to document gaps or overlap among the Board’s questions, to ensure that each group is addressing its respective questions appropriately.

Potential concerns.

- Much of the funding ecosystem depends on unstable funds, e.g., one-time gifts or funds provided by the deans rather than from endowments.
- There may be additional, unidentified need for expanded seed funding programs across the University.

Tracking ROI relies on self-reporting by faculty investigators and administrative efforts. Some potential measures of ROI (e.g., impact on trainees) are “softer” than others (e.g., follow-on research funding.
University of Michigan MCubed seed funding program
Source: http://mcubed.umich.edu/about

This program was established by the provost and president to stimulate innovative research and scholarship in the form of real-time seed funding to multi-unit teams of faculty. "Cubes" are teams of three investigators that can request $60K or $15K. The program is managed by the Office for Research.

The program allows teams to explore early, high-risk research, tackle problems requiring a multi-disciplinary approach, and expose other scholars to multidisciplinary collaboration.

2012-2014 cycle (completed):
- 222 “cubes” received $60,000 (total: $13.3M)
- faculty participants posted their achievements on an MCubed project web site
- in the second round, external donors to the program can participate in supporting research cube activities.
- ROI: $60M in new sponsored research has resulted from round 1 of the UM MCubed seed funding program.

RECOMMENDATION: Consider developing SIF proposal for a “MCubed-like” seed funding program designed for UVA for submission in summer 2017.

4A Research Vetting and Review (BOV: Reyes; Convener: Hudson, VPR)

Subcommitee 4.A reviewed the research investment review process and considered the following questions. What kind of research vetting and approval process is done at the University? How is it linked to the overall strategy? Are appropriate controls in place to ensure appropriate fiscal, ethical and process risks are evaluated? The committee discussions included: James Reyes, University of Virginia Board of Visitor; Linda Bullock, Associate Dean for Research, School of Nursing; Elizabeth Adams, Assistant Vice President for Research Administration; and Jeff Blank, Associate Vice President for Research (for David Hudson). Recommendations, as listed below, are for infrastructure enhancements to improve business processes for research proposal submissions. Some of this is underway as part of a SIF to support and broaden the capabilities of ResearchUVA.

• Where are we now?
  – Typical research program vetting and approval is developed at the department and school level and the general direction of future research influenced through the recruitment process.
    • Larger institutional research initiatives such as pan-university institutes, cluster hires and TOPs hires are coordinated in a partnering review effort with the Schools, Provost, VPR and senior leadership.
  – Individual sponsored research proposals are typically reviewed and approved for submission in a serial process by: the individual faculty member; the department research administrator; the department chair; and, ultimately a Dean’s office representative before transmission to the Office of Sponsored Programs (OSP)
  – OSP and VP for Research review funding proposals and research protocols for process and compliance controls before and after submission to the sponsor. VPR reviews research for ethical concerns and conflicts of interest concerns through its systems
(including the relevant institutional review board for human subjects work and the institutional animal care and use committee).

- Some current research infrastructure systems and processes are suboptimal--lack integration, take significant time, have limited functionality, are paper based or non-intuitive to use

**Recommendations**

Faculty spend a great deal of administrative time in support of their research. If we streamline processes and procedures and put better systems in place this should permit faculty to have more time to spend on their research while the institution still maintains effective controls and compliance.

- **System infrastructure enhancements**
  - ResearchUVA for pre-award proposal submission, tracking (e.g., required financial interests disclosures) and data analysis
  - ResearchNET for research development: tools and support staff
  - High performance computing expansion
  - Library resources

- **Process infrastructure enhancements**
- Use SIF as one tool to support strategic research priorities

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**Research Question 4B. (BOV: Walker; Convener, Shevlin, Advancement)**

**How is the Advancement Area of the University Set Up to Support Research Funding Requests?**

Subcommittee 4.B reviewed how the link between fundraising and research could be improved to increase philanthropic support for UVA research. The committee discussions included Jeff Walker, University of Virginia Board of Visitors; Mark Luellen, Vice President for Advancement; Karen Rendleman, Senior Associate Vice President, Health System Development; Nancy Scogna, Chief of Staff, Health System Development; Katie Shevlin, Director of Foundation Relations, University Advancement; and Catherine Bradshaw, Associate Dean for Research and Faculty Development, Curry School of Education. After two very productive conversations, a number of key recommendations were made, many of which have already been implemented or initiated. For example, the Foundation Relations team has shown tremendous ROI since its reorganization, increasing annual commitments by $30m over two years with just two staff members. After a strong recommendation from Jeff Walker, Mark Luellen and others, a proposal has been submitted to add four additional staff members to this team. Additionally, University Advancement, Curry, and the Health System are developing faculty pitch skills, fundamental policies are being updated, and robust web tools are being designed to centralize and distribute critical resources for faculty research. Below is a summary of the committee’s key recommendations.

**Additional Resources**

- Expand capacity in key areas:
  - Foundation Relations is going to be of increasing importance to research funding as federal funding becomes potentially more volatile. Our current staffing model is well below that of our peers and even other non-peer institutions in the Commonwealth.
As a result, we are recommending an investment in staff for this area starting with the four FTEs described above (budget request pending).

- The Office of Sponsored Programs is an area critical to the success of the research enterprise. Their business services include negotiating contracts and agreements with funders/sponsors, meeting deliverable requirements, providing a necessary resource to faculty around their research funding, and ultimately providing data to stakeholders both inside and outside the University. Despite an investment of SIF dollars in their technological capacity, OSP will not be ready to meet growing research inputs and outputs without an additional investment in key technological tools. Not only will these tools help to improve our relationship with sponsors and funders (to whom we will be able to provide fast, efficient, and accurate service) but it will be critical to that team recruiting the top talent around this pivotal business function. Further, it will stem the growing trend of researchers running funds as gifts to avoid processing delays, which is in turn impacting our F&A/indirect revenue recovery stream.

- Develop case studies to illustrate best practices around integrating fundraising with research.
- Use web tools to provide non-staff resources for faculty to use around research (goal is to have this launched and tested by July 1, 2017; Katie Shevlin responsible).
- Design tools for development officers to use to educate and engage donors around research (collaboration between University Advancement and the VPR office in fall of 2017).

**Integration with Research Priorities**

- Include fundraising needs/costs in campaign and research priorities documents (in process; Katie Shevlin, Mark Lueellen, and Phil Parrish collaborating).
- Increase regular contact between development professionals and research deans/researchers including having fundraisers attend the research deans meeting and have researchers present at Advancement staff meetings.
- Assign fundraising staff to focus on pan-University priorities (i.e. autism, resilience, etc.)
- Consider including internal meetings (with PIs, researchers, and research leaders) in fundraising metrics.
- Explore integrating linking marketing efforts, including focused PR efforts, with research priorities and key PIs (initial conversations in process; key parties will include Dave Martell, Phil Parrish, Katie Shevlin, Charlotte Morford and others).

**Building Capacity**

- Expand and refine pitch day sessions (already in process in several units).
- Update critical policies such as the Gift vs. Grant policy (in process; Katie Shevlin and Elizabeth Adams spear-heading).
- Design a half-day annual training for fundraisers and research leaders.
- Cross-train development professionals on new funding discovery tools (Pivot, GrantsForward, and Foundation Directory Online) (in process- pilot will run on April 14, 2017; Katie Shevlin and Becca Latimer from the VPR office collaborating).
THE FOLLOWING QUESTIONS HAVE BEEN COMBINED

3.C. **Best Practices within and outside of UVA.** gather best practices re research from other universities, research labs, corporations and apply those we like to UVA.  *(BOV: Walker; Convener: Blank, VPR)*

5.A. **Overall Key Questions:** *(BOV: Walker; Convener: Blank, VPR)* Where does UVA stand in research nationally and how should we measure that?

5.B. **Goal setting/Metrics.** *(BOV: Genovese and Murray; Convener, Norris, SEAS)* What are appropriate goals for research for the university and for each school?

5.C. **Research Reporting.** *(BOV: Lateef and Murray; Convener: Bianchetto, COO Office)* Are we tracking/reporting research spending across the university so that we have a complete understanding of where we are spending it and what we are spending it on?

**Best Practice/Metrics Update:**

- In partnership with the associate deans for research, we developed a metrics outline to measure and track research activity. The metrics were shared with the BoV at the December 2016 meeting. This framework was then used to develop an aspirational peer comparative matrix to identify institutions for us to reach out to for best practices review. Additionally, this table can be used as a template to measure future success.

- After careful consideration, we identified UNC and Vanderbilt as the first two institutions to explore. Each BoV work group has identified a series of questions to use as context for the best practices review. These questions and others identified from central senior administration will serve as the foundation for the assessment.

  - UNC was selected due its status as a preeminent public bioscience university that significantly promotes and supports a robust culture of pan-university and interdisciplinary research. Over the past 20 years, UNC has increased its research expenditures over 300% and its national NSF federal expenditure position from 21 to 8. Additionally, UNC has a strong USNWR undergraduate ranking and similar undergraduate and graduate/professional school student populations to UVA. This winter we extensively reviewed the UNC research data management program, infrastructure and strategies thus developing positive ties to their research leadership staff.

  - Vanderbilt was selected due to its close relationship to UVA 20 years ago in federal research expenditures ($92M vs $85M), NSF federal research rankings (43 vs 46) and USNWR undergraduate rankings 2xxx to 2xxx. However, from 1995 to 2015, with strong biomedical research, Vanderbilt grew its federal research expenditures 400% to $402M, increased its NSF federal expenditure ranking to 24 and moved up in the USNWR undergraduate rankings from 2xx to 15. This winter we reviewed Vanderbilt’s clinical trials research efforts as a best practice in preparation of the UVA $17M CTSA NIH grant proposal. We thus developed positive ties and relationships with their research leadership.
• VPR staff will organize best practice reviews will in the Spring 2017. After these two schools are reviewed, we will possibly look to expand the effort to other universities with higher USNWR ranked Engineering programs (Northwestern or Cornell) by late Spring Summer

• After best practice reviews are complete, the collected data will be shared and reviewed with the BoV group, new VPR, schools and university leadership for actionable items to enhance institutional research

**Reporting Update:**

• In addition to the quarterly research data provided to BoV, OSP this winter developed a pilot research dashboard that tracks proposal and award data. This new system allows for the straight forward real time visualization of grant activity at the institutional, school and PI level level sorted by funding agency and other key priority elements. This compelling tool will allow faculty, deans and senior staff the opportunity to review up to the minute research activity in an easy, flexible and timely way. Additional views will be created to provide research data reports supporting a variety of institutional needs including proposal “hit rates” and interdisciplinary research partnering and tracking. OSP will expand the pilot expanded in Spring 2017 with rollout Fall 2017

• The University agreed to partner with the **UMETRICS Project** last year. The effort led by the University of Michigan is a large university consortium started in the Big 10 that compiles, measures, analyzes, and explains the impact university research on the economy initially through jobs created. The foundation for UMETRICS is a common, large-scale, automated data platform on the research made possible by advances in the methods and tools to combine, mine, and analyze big data on research.

  o The project maps the ways in which research spending affects economic activity and analyzes how investments in research affect the economy through expenditures on people and purchases from vendors. Ultimately, through census data, this project also is designed as permissible to track student and postdoc careers and wages earned. Preliminary UVA Data developed Winter 2016. Full pilot data illustrating UVA impact with vendor information available Spring 2017 with visualization and data table supports.

• **NSF Higher Education Research & Development Survey (HERD)**. The NSF HERD report annually collects data on University research and development at higher education institutions. The data collected is broad and comprehensive including expenditures split out by numerous categories including field of research, sponsor, internal spend amounts, research personnel totals and equipment support. The University will submit the revised NSF HERD survey on 2/28/2017 and NSF publishes the compiles data later in the year. This year we expanded the review of the data to include a much broader internal audience including school leadership. This allowed for the report to be a more inclusive and thorough review of the data.

  o This report is important because it is use routinely used for rankings, comparative analyses and publicity when looking at the health and scale of an institution’s research portfolio. This year the University’s research expenditures increased over $25 million to $394 million to near historic highs.
5E BOV Research Committee Question: Overhead Recovery Workgroup (BOV: Reyes; Convener: Bianchetto, COO Office)

Where are we?
BOV Ad Hoc Committee on Research Question 5E met January 4th. The attendees (John Hawley, Dave Hudson, Katie Shevlin, Melody Bianchetto) had a robust discussion related to overhead recovery, also known as Facilities and Administrative (F&A) costs recovery, including existing processes and needed update. We agreed that this is great timing for this discussion, given the implementation of the University Financial Model (which allocates 100% of F&A to the schools now) and the recent negotiation of a higher F&A rate (from 58% to 61% on 7/1/2017 and 61.5% on 7/1/2018). In addition, the University is considering a new Industry Clinical Trials rate.

Existing policies: Indirect Costs; Application of Facilities and Administrative Rates

Recommendations to move forward/what actions or interventions are needed?
Before revising existing policies, we want to consider best practices of peer institutions. We understand that the VP for Research will take the lead on this survey. Suggested questions include:

- What are peer practices in terms of waiving F&A recovery on research proposals, both federal and non-federal?
- Do our peers return any F&A directly to PIs in order to incent and support research efforts, particularly those costs (administrative staff for example) that cannot be charged directly to grants?
- How do our peers treat non-federal awards in terms of:  
  - direct charge of expenses that cannot be direct charged on federal grants  
  - differential (i.e. higher) overhead rates
- How do peers apply on- and off-grounds F&A rates?
- How do peers set clinical F&A rates?

We have also gathered existing data on effective F&A rates (attached) and gathered the existing Northwestern University policy on F&A waivers.

How do we get there/What do we need to do?
After surveying peer institutions, the workgroup will meet again (scheduled by Melody Bianchetto) to develop potential policy changes.

After developing potential policy changes, the workgroup will want to engage with the Research Dean roundtable for feedback and to gain an understanding of the impact, with the ultimate goal of increasing available resources to support the research enterprise. Other potential groups to share proposed changes with: Business Officers Council, Deans, and Cabinet. After revised policies are developed, these will be taken to the Policy Review Committee.