SUMMARY

**Policies & Processes 4-5: Post-Docs**

*(Sue DiBella, Jim Thomson)*

- Discussion of management of postdocs with Division of Research/Economic Development and the Graduate College.
- White paper on status and institutional needs for non-faculty research staff (NFRs) and postdocs. See attached.
- Benchmarks for postdocs and non-faculty research staff and salary projections.
- Met with Dean Korgan and Post-doc in Life Sciences who is concerned about the lack of a post-doc community or support system; the recommended action items below are in response to this conversation, as well as best practices:
  1. Graduate College is gathering info about Post-doc offices at aspirational peer institutions and in the Graduate School at UNR.
  2. Graduate College proposes to collaborate with HR to gather and store data on Post-docs & create Post-doc listserv in AY16-17.
  3. Post-docs will be invited to, and included in, all Grad College workshops, trainings, and support services effective fall 2016.
  4. Grad College will co-host and sponsor (with VP Piechota and the Division of Research) a reception for Post-docs in fall 2016.
One Path to Top Tier: Increasing Nonfaculty Research Staff and Postdoctoral Fellows

Prepared by

Sue DiBella
Division of Research & Economic Development
and
James Thomson
Senior Advisor to the President

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Challenges to Increasing Nonfaculty Research Staff and Postdoc Numbers
- Limited resources
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As UNLV seeks to advance to the ranking of “R1: Doctoral Universities – Highest research activity” as defined by the Carnegie Foundation for the Advancement of Education, the university is examining more closely the status of its nonfaculty research staff. This category of employee includes both postdoctoral fellows (“postdocs”) and nonfaculty research staff with doctorates (NFRs) in STEM and health-related fields (Carnegie Classifications of Institutions of Higher Education Basic Classification Methodology, 2016). Both of these categories include individuals who perform research and serve on research teams, providing technical support, writing grant proposals, gathering data, and/or mentoring students. They are often key support personnel on successful research teams, and they are considered human capital integral to the research infrastructure.

Their relative value to the research endeavor is reflected in the importance the Carnegie Foundation assigns to the variable of total number of nonfaculty research staff members each university employs. This variable is one of just four used to determine Carnegie rankings:

The research activity scale includes the following correlates of research activity: research & development (R&D) expenditures in science and engineering; R&D expenditures in non-S&E fields; S&E research staff (postdoctoral appointees and other non-faculty research staff with doctorates); doctoral conferrals in humanities fields, in social science fields, in STEM (science, technology, engineering, and mathematics) fields, and in other fields (e.g., business, education, public policy, social work) (2016).

Further, among these four variables, only the variables of expenditures and nonfaculty research staff are included in both the aggregate and the per capita components of the Carnegie Foundation’s classification model. Hence, these variables are stronger correlates to the “highest research activity” status than the others.¹

It stands to reason that number of S&E nonfaculty research staff/postdocs would be an important indicator of a university’s research prowess. Universities with large research expenditures, especially on a per capita (faculty member) basis, need more highly trained researchers to perform the tasks integral to research productivity. By the same token, nonfaculty research staff (other than postdocs) are motivated to write proposals to insure a future stream of funding.

Definitions

The Carnegie Foundation determines its rankings based on data provided by the National Science Foundation through its Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS). The glossary for the GSS defines nonfaculty research staff with doctorates as “all doctorate-holding researchers who (a) are not considered either postdoctoral researchers or members of the faculty and (b) are involved principally in science and engineering or health

¹The Carnegie Foundation identified the two overall variables – the aggregate and the per capita research strength – through principal components analysis. The Foundation does not explain how this analysis was specified. The Foundation does provide a data set with, presumably, the data used for the analysis.
research activities” (2011). Though definitions of postdoctoral fellows vary among universities, the National Science Foundation defines postdocs as those who hold a recent doctoral degree (Ph.D. or equivalent, first professional degree in a medical or related field, or a foreign degree equivalent to a U.S. doctoral degree), typically awarded within the last five to seven years, and hold a limited-term appointment, generally no more than five to seven years (Survey of Graduate Students and Postdoctorates in Science and Engineering Glossary, 2013).

At UNLV, postdocs have a defined Human Resources job/position title (primarily “postdoctoral scholar”); however, position/job titles for the non-postdoc NFRs vary greatly across campus. The most common NFR title is assistant or associate research professor (11 of the current 40 NFRs), but there are also such titles as “Healthy Homes Specialist,” “Lab Manager,” and “Program/project Coordinator – Academic.” (This variability in job/position title has implications for data collection, discussed later in this document.)

**Data on Current UNLV NFRs and Postdocs**

For 2015, UNLV will report a total of 75 nonfaculty research staff/postdocs in the GSS, including 42 NFRs and 33 postdocs, representing an increase of 10 percent over the last year. Data reported in the last five years are outlined below.

<table>
<thead>
<tr>
<th>Year</th>
<th>Nonfaculty Research Staff</th>
<th>Postdoctoral Fellows</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>0</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>2011</td>
<td>0</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>2012</td>
<td>0</td>
<td>24</td>
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</tr>
<tr>
<td>2013</td>
<td>24</td>
<td>25</td>
<td>49</td>
</tr>
<tr>
<td>2014</td>
<td>36</td>
<td>32</td>
<td>68</td>
</tr>
<tr>
<td>2015</td>
<td>42</td>
<td>33</td>
<td>75</td>
</tr>
</tbody>
</table>

**Totals by College/School.** The UNLV College of Sciences is by far the largest employer of NFRs with 47 over the last three years; in the same period, the School of Community Health Sciences employed 17 and the College of Engineering, 16. The College of Sciences is also the largest employer of postdocs; from 2013-2015, 57 postdocs were employed by the college. The number of postdocs per college decreases significantly thereafter: the next highest number emanated from the College of Engineering who employed nine, followed by the College of Liberal Arts (the psychology department, specifically) with eight.

**Salaries.** In 2015, the average salary of UNLV nonfaculty research staff with doctorates was $72,089. (If one outlier salary – $244,420 – is excluded, the average NFR salary is reduced to $67,781.) The average salary of postdocs was $45,971, substantially lower than UNLV NFR salaries. It should be noted that the current average UNLV salary level for postdocs is slightly above the 2014 baseline postdoc salary of $42,000 established by the NIH for National Research
Service Awards (NRSA); the recommended range for NRSA salaries goes up to $55,272 for up to seven years of experience. (Ruth L. Kirschstein National Research Service Award (NRSA) Stipends, Tuition/Fees and Other Budgetary Levels Effective for Fiscal Year 2014).

**Funding Sources.** Though conventional wisdom suggests that these positions would be grant funded, there is currently a mix of funding sources for these UNLV employee groups. In 2015, of the 36 NFRs with available funding information, 15 were grant funded, 12 were state funded, six were funded with soft money, and four were funded with some combination thereof. Of the 32 postdocs with available funding information, 20 were grant funded, 10 were funded with soft money, and two were funded by some combination of grant and soft funding. It should be noted that “soft funding” described in this context refers to funding that emanates from faculty startup funding, F&A, and/or Faculty Opportunity Awards (not grant funding).

**Peer Comparisons.** UNLV employs relatively few nonfaculty research staff/postdocs compared with its peers, as demonstrated by the table below:

### Nonfaculty Research Staff (including Postdoctoral Fellows), UNLV & Peer Institutions

<table>
<thead>
<tr>
<th>Peer Institutions</th>
<th>UNLV &amp; Peer Institutions</th>
<th>2015 Carnegie Ranking (based on 2014 data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Colorado – Boulder (CU-Boulder)</td>
<td>618</td>
<td>Highest</td>
</tr>
<tr>
<td>University of Arizona (UA)</td>
<td>570</td>
<td>Highest</td>
</tr>
<tr>
<td>Arizona State University (ASU)*</td>
<td>478</td>
<td>Highest</td>
</tr>
<tr>
<td>University of Utah</td>
<td>466</td>
<td>Highest</td>
</tr>
<tr>
<td>University of Houston*</td>
<td>370</td>
<td>Highest</td>
</tr>
<tr>
<td>University of Hawaii (UH)</td>
<td>303</td>
<td>Highest</td>
</tr>
<tr>
<td>University of Oregon (UO)</td>
<td>178</td>
<td>Highest</td>
</tr>
<tr>
<td>University of Central Florida (UCF)*</td>
<td>74</td>
<td>Highest</td>
</tr>
<tr>
<td>Utah State University (USU)</td>
<td>119</td>
<td>Higher</td>
</tr>
<tr>
<td>University of Wyoming (UW)</td>
<td>104</td>
<td>Higher</td>
</tr>
<tr>
<td>University of Nevada, Reno (UNR)</td>
<td>80</td>
<td>Higher</td>
</tr>
<tr>
<td>San Diego State University (SDSU)</td>
<td>70</td>
<td>Higher</td>
</tr>
<tr>
<td>University of Idaho (U-Idaho)</td>
<td>66</td>
<td>Higher</td>
</tr>
<tr>
<td>UNLV</td>
<td>49</td>
<td>Higher</td>
</tr>
</tbody>
</table>

*Primary Peer Institutions

Source: Carnegie Foundation 2015 Database

UNLV has consistently reported numbers of NFRs/postdocs lower than its peers. A 2014 white paper, “University of Nevada, Las Vegas, Path to Tier One” addressed this disparity:

… some institutions host vastly larger numbers of non-faculty researchers. For example, Utah has nearly ten times the number at UNLV. On the other hand, Oregon employs roughly 75% more research staff than UNLV. As with the number of doctoral degrees conferred, the size of the non-faculty research staff closely corresponds with grant-funded research and grows

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2The University of Central Florida is an outlier in this table. It employs fewer NFRs/postdocs than other peers, but appears to compensate with higher research expenditures and number of doctoral conferrals. It was ranked in the “highest” category in 2015.
accordingly. But, these researchers can be recruited in a shorter timeframe and with a smaller initial investment than tenure-track faculty (2014).

Despite increases since this 2014 white paper, UNLV is still far below its peers in numbers of NFRs and postdocs.

Nonfaculty Research Staff (NFRs): Additional Details

NFR Data Challenges. UNLV has significant challenges regarding data management on nonfaculty research staff. In 2013, the Division of Research & Economic Development discovered that the Human Resources Office has been completing the NFR portion of the GSS survey; lacking institutional guidance on a definition of “research staff,” they reported zero in 2010 to 2013. This was particularly alarming in that 2013 was expected to be a census year for determining Carnegie rankings and in that UNLV numbers for several other variables had declined substantially since the rankings were last determined in 2008.

To address this issue, the Division of Research and Economic Development confirmed that an amendment to the 2013 data would be accepted by the NSF; however, a one-week deadline was given. The division led an effort to hastily produce amended data, and UNLV was able to provide a more accurate count for 2013. At the time, the Division of Research and Economic Development made a number of recommendations for management of variables used to determine the Carnegie rankings, such as the identification and evaluation of business processes associated with Carnegie variables and oversight and management of Carnegie variable data assigned to one central office with appropriate expertise and staff.

Since that time, the Division of Research and Economic Development has taken responsibility for gathering and analyzing data on nonfaculty research staff and has partnered with the Graduate College in completing the GSS survey. Data collection and analysis on NFRs still requires extensive staff time; the process cannot be automated at this point due to a number of factors:

- No single job or position title represents this category of employee, so these individuals cannot be easily identified using these variables. Job titles include “assistant (or associate research professor)” (most common), “laboratory supervisor/manager,” “program or project coordinator,” “professional non-teaching duties,” and “research associate,” among others.
- Institutional data on “highest degree obtained” is not accurate or complete in the human resources data set, so determining if employees have doctorates requires analysis of each individual’s circumstances.
- Determining whether an employee conducts research 50 percent of his/her times is also a challenge, requiring contact with the colleges or principal investigators on individual grants.
- CIP program titles (fields of study) must be determined and categorized according to the list provided in the GSS. While this GSS list is often described as including fields “involved principally in science and engineering or health research activities,” the GSS Code List includes a very broad scope of subjects, including such areas as
communication, international relations, family psychology, political economy, cultural anthropology, child development, criminal justice, etc. Hence, each NFR’s field of study must be analyzed to determine if s/he may be included.

Naturally, the colleges are surprised to learn this data management is not automated, and a few have expressed frustration with the amount of work necessary to track this variable. The number of individuals in the NFR/postdoc group is fortunately small and thus manageable at this point. The implementation of Workday, the enterprise HR/financial software system soon to be adopted on campus, may hold some possibility for greater automation of the identification of this employee group. The Division of Research and Economic Development has discussed the challenges with two individuals (Jackie Hess and Mike Ellison) involved in implementing Workday and has requested that they help address these challenges with the Workday implementation team. This issue, however, should be discussed at a higher level to ensure that the institution has the ability to track this group more efficiently in the future.

**NFR Job Descriptions and Terms of Appointment.** Though all NFRs share the duty of research performance, they seem to have a wide variety of job descriptions, as evidenced by the diversity of position/job titles identified above. Discussions with several deans yield some additional information. Some of the NFRs manage core facilities, technical laboratories, and/or equipment, or they share use of the facilities/equipment with academic faculty. Some are hired to serve as managers of long-term grant-funded projects, or they formerly served as postdocs. Some are opportunity hires; for example, one NFR hire this year was a spousal hire. In at least one case, a dean was interested in hiring an NFR with the hope of transitioning him to a tenure-track position at some later point. It should be noted that NFRs with the words “research professor” in their titles who hold full-time appointments automatically receive PI status, according to UNLV policy; if they do not hold these titles, they may apply for an exception (UNLV PI Eligibility Policy, 2007).

Unlike postdocs, there appears to be no intentional, definitive term of NFR employment (except in the case of grant-funded positions, which would naturally be limited by the grant duration). There are several NFRs who are longtime UNLV employees; several moved into academic departments as a result of the reorganization of the Harry Reid Center for Environmental Studies.

**Postdoctoral Appointments: Additional Details**

**Postdoc Data Collection.** UNLV does have a job/position title of “postdoctoral scholar,” facilitating better data collection on this employee type. Some analysis is required to determine if the postdoc fits the other criteria requested in the GSS Survey, and fields of study must be determined as with NFRs. This requires review of online CVs or websites, or a conversation with the postdoc or the supervising PI.

**Postdoc Job Descriptions and Terms of Appointment.** The GSS Survey requests that each institution use its own definition to determine whether its employee fits the postdoctoral appointment criteria. The Title 4, Chapter 7 of the NSHE Board of Regents Handbook offers some defining attributes of postdoctoral fellows, including completion of a doctoral degree in the appropriate discipline.
A Postdoctoral Fellow appointment is a temporary advanced scholarly appointment of at least 50 percent. It is a specialized education and training position in research or scholarship under the direction of a faculty sponsor(s) established for the Postdoctoral Fellows’ continuing education and professional growth. (The Postdoctoral Fellow is not precluded from applying for any grant, contract or postdoctoral training grants or nationally competitive postdoctoral fellowships permitted under guidelines of the research office of each institution.) Those persons excluded from the postdoctoral status are registered full-time students, candidates for a degree, visiting scholars who are not at the University for the purpose of receiving further training, or anyone who does not meet the above definition. The Postdoctoral Fellow appointment serves to advance the competence of a person who has recently completed higher professional training marked by a doctoral degree (2012).

Although postdocs do not have automatic ability to serve as principal investigators, UNLV’s Policy on PI Eligibility indicates that “Individuals who are post-doctoral fellows … may obtain appointment as a PI by submitting an exception request to the Office of Sponsored Programs (OSP) or the Office of Research Integrity (ORI) as outlined in this policy.” Thus, this would require postdocs to take an extra step to pursue grant funding; obtaining feedback from current postdocs and PIs on this subject may yield useful feedback.

The aforementioned Board of Regents Handbook also prescribes the duration of the postdoc appointment as “in most cases, be one year or two, and may not exceed five years” (2012). This duration differs from the one identified in the GSS Survey, which is five to seven years. Unlike NFRs, they are often not permanent UNLV employees, as they typically pursue faculty positions at other institutions after their time as postdocs.

**Increasing Totals of Nonfaculty Research Staff and Postdocs**

**Projections.** To meet the Top Tier Initiative goal of increasing the number of NFRs/postdocs to a minimum of 120 by 2025, UNLV must hire and sustain an additional 45 postdocs or NFRs in the next nine years. Whether paid with grant or state funding, the cost of hiring 45 more NFRs/postdocs will require in the range of $2-3 million spread across this period plus additional ongoing costs of maintaining their employment over time; some startup costs may be necessary as well. More in-depth cost analysis should be performed. Given that the Carnegie Foundation does not distinguish between the value of NFRs and postdocs – and given that postdocs have lower salaries – the most cost-effective approach to increasing this variable would be to emphasize hiring postdocs rather than nonfaculty research staff. Given the relative ease of increasing these numbers, this may be one of the fastest, most inexpensive ways to increase UNLV’s Carnegie standing. While increasing expenditures and doctoral conferrals is naturally a strong institutional goal, hiring of nonfaculty research staff/postdocs is more within institutional control than the other variables (R&D expenditures and doctoral conferrals).

**Funding sources.** Though funding source data on postdocs is collected in the GSS Survey, there is no indication that grant-funded postdocs receive a weighted value over state-funded postdocs.
in the Carnegie rankings. Though postdocs are commonly believed to be grant funded, as previously discussed, current UNLV data indicates a mix of funding sources. It is certainly possible to increase this group’s numbers with an infusion of funding from other sources. Some consideration may be given to growing postdoc numbers through a seed funding program (such as the Faculty Opportunity Awards) or through outright funding of these positions. New faculty could be encouraged to include postdoc funding in their startup package budgets, and more faculty could be encouraged to include postdoc funding in their grant proposals. Whatever the source, funding for these positions would build research infrastructure and could be employed specifically to help with proposal development and doctoral mentoring.

Recruitment. At present, there is little support for postdoc recruitment at the institutional level. Though faculty clearly must have the freedom and ability to recruit and hire their own research teams, the institution could offer some support and promotion in this area. Coordination with the colleges and principal investigators would be necessary in the development of any institutional recruitment plans and their implementation. Input from PIs is critical to any large-scale hiring plan for postdocs, as they would be the frontline supervisors of the incoming NFRs/postdocs. Establishing minimum postdoc salaries would be a step to consider as well, and various other forms of institutional support are discussed below.

Supporting Nonfaculty Research Staff and Postdocs

The Division of Research and Economic Development has received feedback from some NFRs/postdocs suggesting that greater support and management of these groups is warranted. Though individuals from these groups are managed by their PIs and respective departments/colleges, there could be larger, institution-wide support structures established at UNLV. The following section describes some different forms of support that could improve hiring, recruitment, and retention of both groups.

Facilitating group identification. At present, sense of affiliation of both groups is through their departments/colleges only; there appear to be no associations of postdocs or NFRs at UNLV. A listserv could be established, and a postdoc association could be formed, as they are at many other universities. Both the listserv and the association would provide networking opportunities and possibly promote interdisciplinary research and mentorship.

Professional development. While a certain degree of training and mentorship from the faculty for these employees is required for research activities, particularly for postdocs, the institution could provide additional professional development opportunities specifically designed for these groups. Training in grant writing, teaching, lab management, and preparation for employment interviews would all be appropriate topics. It would be advantageous to survey these employees to gain input on their needs in this area.

Support for research and travel. Funds specifically for postdoc and NFR travel could be allocated and distributed. Some NFRs/postdocs may want to pursue a research agenda separate from their mentor’s and may require additional funding for this.

“Pipeline process” identification. Traditionally, postdocs have been guided to move on to
another institution to obtain faculty positions; however, it is certainly possible to allow them to pursue faculty positions on campus if opportunities were available. This would make UNLV postdoc positions more desirable to some. If the institution determines this is possible and desirable, it would be appropriate to identify a process for this “pipeline” to faculty positions. Or, postdocs may not intend to seek faculty positions, but may instead desire nonfaculty research staff positions. Either way, the institution, its colleges, and PIs should be clear with postdocs on the expectations and process to seek either path, if such opportunities are available.

**Relevant policies identified clearly, grouped, and posted online.** UNLV provides more policy guidance on postdocs than on NFRs online. Guidance on mentoring and training postdocs is available at [https://www.unlv.edu/sites/default/files/24/GuidanceMentoringPostdocResearchers.pdf](https://www.unlv.edu/sites/default/files/24/GuidanceMentoringPostdocResearchers.pdf), but it is not clear what campus unit provides this guidance. Guidance from Human Resources is provided on retirement requirements is available at [https://www.unlv.edu/hr/benefits/retirement/postdoc](https://www.unlv.edu/hr/benefits/retirement/postdoc). The aforementioned NSHE policy also defines postdocs but is not available on the UNLV website. A search of the UNLV website yields little information on NFRs except for the discussion of their significance in the Carnegie rankings. It would seem appropriate for policies affecting these groups to be developed and available online. It would also be advisable to create policies and processes that streamline hiring of postdocs to ease faculty administrative burden.

**Promotion of Accomplishments.** Acknowledgement of contribution is one of the intangible rewards that could enhance recruitment and retention of both groups. A website containing relevant policies as well as accomplishments could be developed, and these groups could be promoted more often in a variety of public relations materials.

**Space.** There are reports from faculty of limited space available for postdocs. Research space is limited across campus, and additional steps are needed to ensure both groups have the lab and office space necessary to conduct their research.

**Need for clear administrative oversight and responsibility for support of both groups.** All of the above actions require coordinated administrative support to achieve. The colleges may support NFRs/postdocs individually, but as groups, neither the postdocs nor NFRs have advocacy or management infrastructure. Both of these functions could aid in increasing NFR/postdoc numbers. Additionally, obtaining feedback from these groups through a survey mechanism seems prudent as well.

**Summary Recommendations**

**Hire More Postdocs to Increase UNLV’s Carnegie Ranking.** While increasing expenditures and doctoral conferrals is naturally an important institutional goal, hiring of nonfaculty research staff/postdocs in STEM and health-related fields is far more within the institution’s control. Given the weight of the NFR/postdoc variable to the Carnegie rankings, it would be advantageous to invest in these groups. Since the Carnegie Foundation makes no distinction between NFRs and postdocs – and given that UNLV postdoc salaries appear to be lower than NFRs’ – it would be more cost-effective to hire more postdocs than nonfaculty research staff. However, it should be noted that nonfaculty research staff are often hired to manage important
core facilities at major research universities; these NFRs can be critical to the success of the facility and its research endeavor.

**Increase the NFR/Postdoc Top Tier Goal and/or Shorten the Time Frame.** UNLV’s Top Tier goal for nonfaculty research staff is too low (and/or the time frame in which to reach it is too extended). It is recommended that the university increase its top tier goal for nonfaculty research staff/postdocs to a higher target number to be determined through further analysis of Carnegie data. The university could also fast-track postdoc hiring to reach the current targeted increase more quickly. Because these employees contribute significantly to grant writing and mentoring of doctoral students, this is a win-win: The university increases one variable (NFRs/postdocs) that produces short-term improvement in our Carnegie standing while building HR infrastructure that supports increases in the other important Carnegie variables (expenditures and doctoral conferrals) in the long-term.

**Involve the Campus in Recruitment/Hiring Plans.** Any plan designed to hire postdocs on a large scale should be vetted with the deans, the associate deans for research, and a representative group of principal investigators (perhaps the Research Council). The need for coordination in administration is evident, and PIs would be the immediate supervisors of postdocs, so both must be consulted. One limiting factor of any such plan would be inadequate numbers of faculty PIs available to supervise the postdocs. While the potential for productivity would be great, additional postdocs mean additional supervisory burden on faculty. (However, several faculty have indicated that postdocs actually relieve their overall burden by bringing sophisticated skills to the research team, mentoring graduate students, and writing proposals.)

**Conduct “Best Practices” Survey of Other Postdoc Hiring/Retention Models.** Other models from around the country should be examined and best practices ascertained. Anecdotal evidence suggests some institutions are utilizing more expansive thinking in hiring postdocs; for instance, some are hiring postdocs that serve more than one PI or even more than one research team. Some are recruiting postdocs with the intention of transitioning them to faculty positions. Though these are not traditional strategies for managing postdocs, further analysis seems warranted.

**Improve Data Management.** Employees who fall into the non-postdoc NFR employment category should be identified/tagged in their employment data to facilitate the institution’s ability to track them. The diversity of their titles, combined with the other characteristics necessary to place them in this category, make it difficult to manage the data on them. The Office of Decision Support should be tasked with managing nonfaculty research staff/postdoc data in cooperation with the Division of Research and Economic Development and the Graduate College.

**Conduct a Salary Study.** Conducting a salary study of peer institution’s pay of postdocs would produce valuable information. Given the importance of this group to UNLV’s Carnegie ranking and its overall research activity, ability to attract highly qualified, productive postdocs seems an important consideration. Also, establishing a minimum salary for postdocs could aid in recruitment.

**Support/Manage NFRs/Postdocs as Groups.** Although the colleges/departments and principal investigators manage these employees on an individual basis, there has been limited central
administrative infrastructure to manage and support these groups or the interest in increasing their numbers. This could impede NFRs/postdocs working on interdisciplinary research projects and impact their effectiveness in general. Also, the lack of advocacy, training, and policy for these groups may contribute to diminished morale among their members and could affect recruitment. Responsibility for the NFRs/postdocs as groups should be assigned in the current administrative structure so there is clear oversight and accountability for developing initiatives to support these groups. The Graduate College should serve as institutional managers of postdocs, and the Division of Research and Economic Development should manage the nonfaculty research staff members who are not postdocs. Both university entities should work closely with the leadership of the colleges to manage the groups effectively. Additionally, this management structure could allow for better alignment of postdoc hiring within emerging or institutes.

**Summary Challenges**

**Limited Resources.** Funding for postdoc position seeding/creation is necessary, as is office and lab space and other resources needed to support research productivity.

**Additional Supervisory Burden for Faculty.** PIs will be required to oversee new postdocs; thus, it could be argued that hiring additional faculty members is also necessary if many postdocs are to be hired.

**Competing Interests for Funding.** This could impede campus buy-in. It could be argued that the university should adopt a more holistic, long-term strategy and invest in all areas (tenure-track faculty, doctoral programs, GA funding) rather than investing disproportionately in postdocs.

**Poor Data Management of Non-Postdoc NFRs.** Data is scattered, and collection is not automated. Some of the necessary data sets are incomplete and difficult to acquire.

**No overarching institutional management/support.** No focused administrative structure exists for oversight, support, or advocacy of postdocs and NFRs as groups.
Acknowledgements

Several members of the campus community have participated in useful discussions that contributed to the content of this paper, including the following: Kate Korgan, Dean of the Graduate College; Tim Porter, Dean of the College of Sciences; Shawn Gerstenberger, Dean of the School of Community Health Sciences; Brian Hedlund, Life Sciences Professor and Academic Fellow; Marty Schiller, Life Sciences Professor and Director of the Nevada Institute of Personalized Medicine; Natasha Griffin, UNLV Life Sciences Postdoctoral Fellow; and Mike Ellison, Business Intelligence Analyst.
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