Report on NHA study for the NAB Foundation

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Overall Activity/Purpose/Progress

The research team has reviewed and analyzed several relationships in an effort to better understand impacts education and training have on development of “successful LTC administrators”:

- Relationships between applicant demographics, and state education & training stringency scores, & PES exam scores as a proxy of a “successful administrator”
- Relationships between applicant demographics, education and training characteristics, and PES exam scores & 5 star ratings of licensee’s facilities, within 10 years of licensure are also used as a proxy of a “successful administrator”

The research team also made attempts to review state licensing Boards’ datasets for use in a broader analysis to evaluate requirements and quality of preparation of administrators, but a request to all NAB member states, with follow-up calls, reminders, and requests to participate still yielded minimal results.
Of the few states who did participate, there seemed to be a great deal of variety in the types of data collected/available to the board. The lack of consistent data and low response rate meant that the initial proposed analyses could not be conducted.

Since few data sets were obtained, and many did not offer much more useful information than what was already contained in the PES dataset, a new approach was considered. As such, a convenience sample of states was used to locate publicly available information regarding “Administrator of Record” at nursing homes, and then those lists were cross referenced with the 10 years of licensees included in the PES dataset. Then, the most recent 5 Star data for each of these facilities was obtained. We had 500 recent licensees serving as Administrator of Record across 17 states, whose education ratings are quite varied between them. These data were then also matched with the OSCAR data, for control purposes.

Findings & Results

Initial Results
In a preliminary analysis we examined the PES NAB data set. The 2001 through 2009 data records were sorted into a uniform format such that the exam scores could be examined in a multivariate format. We had complete records for 10,428 exam scores, and we developed 2 new variables of interest - a stringency of education score and a stringency of training score. The education stringency score was created by examining the education requirements to becoming a certified NHA in each state. These were categorized by the research team from low to high. The training stringency score was created by examining the AIT requirements for becoming a certified NHA in each state, and these were also categorized by the research team from low to high. Researchers statistically controlled for applicant differences in age, gender, education, and length of time in the field; and the resulting multivariate regression analyses show that: (1) higher stringency of education scores are significantly associated with better exam scores (p>.01); and (2), higher stringency of training scores are significantly associated with better exam scores (p>.001). Thus, both state education and field experience requirements seem to have an important influence on NHA exam scores.

Additional Results
Both the 2001-2009, and the 2010 NAB data sets were examined, comprised of over 10,000 examinees, and using a multivariate regression analysis, various demographic data was analyzed to determine the weight of importance each variable contributes to PES NAB Exam performance. Researchers statistically controlled for applicant differences in age, gender, education, length of time in the field and the stringency scores mentioned above. The resulting multivariate regression analyses show that education and length of AIT have a very strong
association with better exam scores \(p > .001\). Thus, strong preliminary evidence now suggests that both education and training influence NHA exam scores (controlling for other relevant factors).

**Pilot Relationship to 5 Star Data**

Finally, the research team decided on an approach to further validate use of PES NAB exam scores as a proxy for “successful future administrators” and to better determine the ultimate impacts of education and training on actual performance outcomes as an NHA. The current administrator of record and related 5 Star ratings were captured among a sample of examinees who are working in states whose “administrator of record” data was readily available to the public. These 17 states with easily accessible public data on administrator of record included AL, AZ, CO, MA, MN, MO, NC, ND, NH, NJ, NM, OK, SC, SD, TN, VT, & WI, and as a result, we were able to locate the current facilities at which 500 individuals who obtained their NHA license within the past 10 years were currently working, and were also able to look up those facilities’ most recent 5 Star ratings. Because researchers already possessed OSCAR data, we were able to link data findings to this broader database to allow for control of variables such as staffing, ownership, and size in our analysis examining the relationship between preparation and future success of LTC administrators. We looked for a positive, significant relationship between PES Exam score and 5 Star ratings. We found NHAs with higher exam scores to have better overall Star Ratings, Health Inspection Star Ratings and Total Enforcement Actions Count (deficiency citations), but no significant differences were found for Nurse Staffing Star Ratings and Quality Measures Star Ratings for RNs (while controlling for Certified Number of Beds, Percent of Occupied Beds, Type of Ownership, Located Within a Hospital, Multi-Nursing Home Ownership, Number RN Hours Per Res Per Day, Number of LPN/LVN Hours Per Res Per Day, Total Number Licensed Staff Hours Per Res Per Day, and Number CNA Hours Per Res Per Day).

**Limitations**

There are some obvious limitations to the current study, as it is based on the following assumptions that:

- A higher score on the PES NAB Exam is reflective of a higher level of competency and is an appropriate and reasonable proxy for “successful future administrator”;
- The most recently available 5 Star rating is reflective of the impact and leadership of the currently named administrator of record;
- The states from which publicly available data was drawn are representative of a variety of training and education rigor standards, and generalizable;
- The 5 star rating system is an appropriate organizational proxy measure of the “success” of an administrator.
Future Research Ideas and Needs

On reflection, there are several important questions we wish we could continue to explore, seeking even more evidence, such as:

- Does the preliminary relationship between education/training and success as a future administrator found provide enough guidance to recommend consistent education & training standards?
  - How can further exploring this relationship increase the quality of education?
  - What other aspects of program curricula or field experience training are the biggest influencers on future quality administrators?

- In terms of available data, what data is being tracked, and what should be? It would be ideal to have data related to current supply and future need for LTC administrators in this country.
  - How many actively licensed, yet not employed as Admin of Records are there?
  - How many are also licensed in other states?
  - How can we more effectively follow the tenure of practicing administrators?

Recommendations:

- Advance routine data collection by states so data is available for future research efforts
  - Due to perceived variation in what data is tracked and what it is used for, a NAB task force should be formed to discuss these ideas, feasibility, suggestions, and explore their relationship with the existing PES data collection approach. One important first steps would be to collect and examine current high impact practices of existing state licensing agencies.
    - One area boards should focus on immediately is developing a consistent approach to tracking and sharing administrator tenure information, perhaps in conjunction with license renewal applications, such as “Are you a current Administrator of Record of a facility? What facility? Where is that facility located, What is the federal Provider # of that facility? Are you licensed in any other states? If yes, where? Are you actively seeking employment as a NHA?”
    - It would also be extremely helpful to track each licensee’s history and tenure as Administrator of Record to allow for further research into impacts of overall tenure or tenure at a given facility on quality, and to what degree.
• The NAB organization should also ask CMS to collect the licensee # of the Administrator of Record in OSCAR, and be involved in any data collection discussions to promote efficiency.

We would like your permission and support to continue this study on a broader scale and with an even more rigorous approach, based on your feedback. We would appreciate the appointment of a couple of your NAB Foundation board members and a representative staff member to review a proposal to continue our efforts going forward. We are also interested in exploring an approach that has additional funds being requested from another foundation or sponsor sources, so we can more adequately support research time and efforts.

In closing:

We appreciate the opportunity to work with your Foundation. We regret the perceived lack of interest or ability to participate by State Agencies, and look forward to supporting their ongoing efforts based on some of our above recommendations. Ironically, moving toward the use of the PES data set actually was the right direction for this research, and probably advanced our efforts and thinking beyond our initial plans.

As noted, our preliminary findings indeed suggest there are certain education and training standards that do a better job of preparing future administrators for success than others, and your organization should begin assembling the evidence and approaches to advance evidence-based recommendations, such as a minimum of a Bachelor’s Degree and the AIT equivalent to one year of field experience.

Finally, we want to make you aware that we will also be sharing some of our efforts next week as part of a Legislative Forum on Advancing Practices for Raising the Bar for Senior Care Leaders at the National Emerging Leadership Summit and jointly sponsored by the US Senate Special Committee on Aging. The full report of the proceeding will be publicly available later this summer and we ensure the NAB Foundation receives an advance copy.