(Bland et al. 2005)

Bland, Carole J, Bruce A Center, Deborah A Finstad, Kelly R Risbey, and Justin G Staples. 2005. “A Theoretical, Practical, Predictive Model of Faculty and Department Research Productivity.” *Academic Medicine* 80 (3): 225–37.

In the study by Bland et al. (2005), the authors examine facilitating faculty research productivity at the University of Minnesota Medical School—Twin Cities. They aim to understand and enhance faculty research productivity by exploring a range of individual, institutional, and leadership characteristics. This exploration is conducted through an analysis of survey data from 615 full-time faculty members, focusing on various aspects that might influence research productivity.

The study sets out to identify strengths and weaknesses within the medical school in relation to faculty research productivity, to strategize for improvements, and to provide a baseline for measuring the impact of any implemented initiatives. This approach is consistent with the broader goals of enhancing academic research capabilities.

Bland et al. investigate the simultaneous effects of multiple characteristics thought to facilitate faculty research productivity, validating the Bland et al. (2002) model. This model suggests that high research productivity is associated with a range of individual characteristics, institutional characteristics, and leadership qualities, with a hierarchical order positing individual characteristics as the foundation that is influenced by the research-conduciveness of the institution and mediated by leadership qualities.

The individual characteristics outlined by Bland et al. (2005) for research productivity encompass a broad range of personal qualities and skills. These include a deep understanding of the academic environment's values, norms, and expectations (Socialization), along with a strong internal motivation to contribute to society through innovation and discovery (Motivation). Proficiency in one’s research area is vital, which means being familiar with key works, theories, and funding sources (Content Knowledge). Effective research skills, both basic and advanced, are crucial (Research Skills). A practical approach to managing multiple projects simultaneously is recommended to sustain productivity even when some projects face challenges (Simultaneous Projects). Faculty members are expected to be engaged in both external and internal organizational activities (Orientation), maintaining a balance between autonomy and commitment to the larger institution (Autonomy and Commitment). Early establishment of productive scholarly habits is also emphasized (Work Habits).

Institutional characteristics that foster research productivity include proactive recruitment and selection processes to ensure alignment between the faculty’s and institution's goals and values (Recruitment and Selection). The institution should have clear, coordinating goals that guide members’ work (Clear Coordinating Goals), with research being a high priority (Research Emphasis). A culture that bonds members through shared research-related values and supports innovation is important (Culture). The work environment should be positive and innovative, characterized by high morale and receptivity to new ideas (Positive Group Climate). Mentoring, where established scholars assist junior members, is crucial (Mentoring). Vibrant networks for professional communication within and outside the institution are necessary (Communication with Professional Network). Adequate resources, including funding, facilities, and human support, are essential (Resources). Faculty members need sufficient uninterrupted time for scholarly activities (Sufficient Work Time). The group should be diverse and have enough members to achieve a critical mass (Size/Experience/Expertise). Clear communication, equitable research rewards, opportunities for professional development, decentralized organization, and assertive participative governance also contribute to a productive institutional environment.

Leadership characteristics crucial for research productivity involve leaders being highly regarded as scholars, serving as mentors and role models (Scholar). They should possess a strong research orientation, aligning with the group's mission (Research Oriented). Effective leadership includes managing resources, fundraising, advocating for the group, and keeping the group focused on its mission (Critical Leadership Roles). Leaders should adopt a participative style, involving frequent meetings with clear objectives, creating mechanisms for decision-making contributions from all members, making high-quality information available, and vesting project ownership with members (Participative Leader). This leadership approach facilitates an environment where research productivity can flourish, guided by leaders who are actively engaged in fostering a research-centric culture and infrastructure.

The findings of the study are particularly insightful. They found that tenure-track faculty and those of higher academic rank were more likely to be highly research productive. Interestingly, the study suggests that certain factors, such as being part of a department with many significant external grant-getters, a high number of teaching hours, and having a well-developed internal departmental network, were negatively associated with research productivity. These results imply that having an external network is more crucial for high research productivity than an internal one, and that time spent on teaching may detract from time available for research.

The positive associations with research productivity included being internally driven to conduct research, spending more hours on research, having a developed network of external colleagues, having administrative responsibilities, having been assigned a mentor, and being part of a sufficiently large department to meet research goals. These findings align with the view that individual motivation, external collaboration, mentorship, and institutional support are key drivers of research productivity.

The study's emphasis on the importance of individual characteristics as foundational to research productivity, along with institutional and leadership support, resonates with this thesis. It suggests that while individual attributes are crucial, they need to be complemented by supportive institutional and leadership environments. This understanding is particularly relevant to the small-team networks aimed at describing the network characteristics of the researchers and suggesting network and team treatments to ensure the GC initiative provides the optimal environment to facilitate research productivity.

Furthermore, the findings on the importance of external networks and mentorship are especially relevant to my research on faculty networks and the homophily of departmental connections. The correlation between high research productivity and being connected to highly productive nodes in a network, though not causative, is significant. It highlights the potential mentorship role that connections to highly productive nodes could play in small team networks, suggesting that such connections could enhance overall productivity.

The Bland et al. (2005) study provides valuable insights into the factors contributing to research productivity in an academic setting. It underscores the complex interplay between individual drive, institutional support, mentorship, and networking (both internal and external), offering a nuanced understanding that can inform strategies to boost research productivity within academic institutions.