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Vannevar Bush: A Public Sector Entrepreneur

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ABSTRACT

In this monograph, I define public sector entrepreneurship in terms of innovative public policy initiatives that generate greater economic prosperity by transforming a *status quo* economic environment into one that is more conducive to economic units engaging in creative activities in the face of uncertainty. Using that definition, I propose that Vannevar Bush is a quintessential example of a public sector entrepreneur. I then propose that the Bayh-Dole Act of 1980 is an innovative public policy initiative that has ingredients of Bush's philosophy about the role of government in technological advancement. Using Bush and the Bayh-Dole Act as examples of public sector entrepreneurship, I conclude the monograph with framework that might serve as a unifying taxonomy for interpreting future research on public sector entrepreneurship.

Foreword

Thinking and research on entrepreneurship suffers from a surprising anomaly. When it comes to the entrepreneurs, the focus is first and foremost on people – how and why they discover and create opportunities, and the process by which they commercialize or actualize those opportunities. The entrepreneurial decision and mindset are nothing if not about a person finding their path in a complex and noisy world. By contrast, when it comes to entrepreneurship policies the focus remains exclusively on strategies, instruments, impacts and recommendations. It is as if people have been taken out of policy. Robert Solow, the Nobel Prize winning economist from MIT famously suggested that innovation falls like manna from heaven. Perhaps it does, but the entrepreneurship literature would have it that entrepreneurship policy falls like manna from governments. It is policy devised and implemented by nameless bureaucrats who, hopefully, are carefully following the prescriptions laid out in the entrepreneurship literature. It is as if entrepreneurship scholars have taken to heart the warning by Arendt (1963), “The nature of every bureaucracy is to make functionaries and mere cogs in the administrative machinery out of men, and thus to dehumanise them.” If forgetting them is to dehumanize them, then the entrepreneurship literature is culpable.

This is where Al Link, and this highly original and important article comes in. Al does for entrepreneurship policy what scholars have been

doing for decades for entrepreneurship. He puts the person, with all their attendant humanness, at the center of entrepreneurship policy. I have yet to read an article on entrepreneurship policy that begins with a focus on a person. Yet, there he is, Vannevar Bush, in the second sentence of Al's paper. This makes it clear, in contrast to what has become a burgeoning mountain of literature on entrepreneurship policy, that people matter for policy, just as they do for entrepreneurship.

Of course, as John Donne reminds us, "No man is an island," and neither was Vannevar Bush. As Al carefully lays it out, Bush was very much not just a product of his times and circumstances, but also of those people he met and interacted with. Al highlights Bush's interactions with President Franklin D. Roosevelt as pivotal in shaping Bush's views about the opportunities for science and technology in driving economic progress, and the key role that government could play in catalyzing and realizing those opportunities.

Thus, in Al's understanding of what underlies public policy, it is not only the public entrepreneur, but also the people they interact with as well as the context in which those interactions take place that matter. Al explains with crystal clear clarity what exactly shaped Bush, and how he in turn shaped America's science and technology policy, and ultimately the emergence of a knowledge driven economy and society.

It is not surprising that Al recognizes and articulates the role of the entrepreneur in the domain of public policy. His seminal and foundational work, together with Hébert and Link (1988, 1988), on understanding what is meant by entrepreneurship took a decidedly human perspective. To understand the entrepreneur is tantamount to understanding the person. What is even more telling is his inspirational book, *A Generosity of Spirit: The Early History of the Research Triangle Park* (1995). I had expected the book to contain the typical economic analysis of sifting through data analyzing patents, companies and startups. Instead, the book opens with a photograph of the five leaders in North Carolina who together came up with an innovative idea for a bold new policy that ultimately would transform the state and region from one of the poorest in the country to one of the more prosperous. In fact, Al's book focused on the people and their leadership in transforming North Carolina. The title said it all – *A Generosity of Spirit*. Al was able to

capture the human dimension of entrepreneurship policy. His meticulous attention to history, context, but first and foremost the key role played by leaders, resulted in a book depicting public entrepreneurship. The strategy of transforming North Carolina did not emerge from bloodless, nameless bureaucrats pulling the levers of public policy, but rather from the bold, creative, and entrepreneurial action of leaders.

However, no one called it that, at least not back then. It should come as no surprise that Al was among the pioneers of a growing and crucial strand of literature focusing on public entrepreneurship. It is Al who is largely responsible for recognizing the entrepreneur, and his/her bold and daring leadership, who can drive innovative thinking and shape new policies in the public sector (Hayter *et al.*, 2018; Leyden, 2016; Leyden and Link, 2015).

This important paper by Al also makes it clear that Vannevar Bush's legacy and imprint on American science and technology extend well beyond his death. Al makes a compelling case that the Bayh-Dole Act of 1980, which is generally attributed with unleashing scientific research at American universities for commercialization and innovation, has its roots in the spirit and ideas of Bush. Just like their counterparts in the private sector, public sector entrepreneurs can leave a long-lasting impact and legacy that transcends themselves.

Al lays to rest the widespread view that the private sector has a monopoly on entrepreneurship. As he concludes, entrepreneurship in the public sector can ignite not just science and technology policy, but ultimately innovation policy and the attendant economic prosperity. The ensuing pages provide a compelling analysis in Al's own words and voice of one such public entrepreneur, Vannevar Bush.

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