Are Universities Cultivating Entrepreneurs—or Manufacturing Them?
by Eugene Fregetto

I have spent more than four decades teaching, studying, and helping to build the field of entrepreneurship education. I began teaching entrepreneurship when the discipline was still struggling for legitimacy, when relatively few universities offered courses and even fewer regarded entrepreneurship as a serious academic field.

I have watched entrepreneurship education grow from an academic orphan into a global enterprise. Today, more than 300 American colleges offer bachelor's degrees in entrepreneurship, while many more operate minors, centers, incubators, accelerators, and business-plan competitions. This growth is an extraordinary achievement. Those of us who helped build the field once fought merely to get entrepreneurship into the university. Now it seems to be everywhere. But after watching this remarkable expansion, I have become increasingly concerned that universities may be industrializing entrepreneurs rather than cultivating them.

A provocative new working paper gives that concern empirical weight. In "Does Teaching Entrepreneurship Produce Entrepreneurs?" [i] Elif N. Güler examines the introduction of

undergraduate entrepreneurship programs at more than 150 American universities. She combines historical university catalogs with LinkedIn career histories for more than 300,000 graduates and compares adjacent student cohorts before and after entrepreneurship programs became available.

Her central finding should command the attention of every entrepreneurship educator and university administrator: Exposure to formal entrepreneurship education reduced immediate postgraduation business formation by approximately 10.7%. Even more troubling, the decline was driven entirely by fewer small businesses. Entrepreneurship programs produced no detectable increase in growth-oriented ventures, no positive effect on business formation within three, five, or seven years after graduation, and no durable improvement in the continuation of the businesses graduates did start.

These findings do not mean that entrepreneurship cannot be taught. I have devoted too much of my professional life to entrepreneurship education to accept that conclusion. Nor do the findings prove that entrepreneurship degree programs are inherently harmful. They do, however, challenge an assumption that has become deeply embedded in universities and public policy: that creating more entrepreneurship programs will necessarily create more entrepreneurs, more businesses, and stronger economies.

For too long, we have treated the institutional growth of entrepreneurship education as evidence of its success. We count courses, majors, students, incubators, pitch competitions, and completed business plans. We celebrate the number of ventures launched and the amount of capital raised. These measures are easy to collect and attractive to donors, university administrators, and policymakers. But they may tell us more about the growth of the entrepreneurship-education industry than about the development of entrepreneurs.

As entrepreneurship education has expanded, it has increasingly come to resemble a factory production line. Venture creation is broken into discrete units: opportunity recognition, customer discovery, business-model development, financing, launch, and scaling. Students proceed through a prescribed sequence, complete standardized assignments, and present their ideas at predetermined milestones. Faculty members apply stage-gate reviews and assess whether each project is ready to advance to the next step.

Universities have understandable reasons for organizing entrepreneurship this way. Curricula must be approved, scheduled, assessed, and replicated. Accreditation systems demand measurable learning objectives. Large programs require consistency. Administrators and policymakers want evidence that their investments are producing predictable results. But entrepreneurship is not a predictable production process, and aspiring entrepreneurs are not standardized raw materials.

Entrepreneurs differ in their experiences, motivations, cultures, ambitions, resources, and tolerance for uncertainty. Their ideas develop at different speeds and in different environments. Some opportunities arrive through careful analysis. Others emerge through improvisation,

unexpected relationships, or accidental discoveries. Some ventures begin with a polished concept. Others develop through repeated experimentation, failure, reflection, and reinvention. The attempt to impose too much order on entrepreneurship risks eliminating the very qualities that make entrepreneurial action possible.

The economist E.F. Schumacher described the creative energy that accompanies uncertainty, imagination, and risk as the "magnanimity of disorder." Entrepreneurship requires discipline, planning, and accountability, but it also requires the courage to enter situations that cannot be fully predicted or controlled.

In my own work, I have contrasted two approaches to entrepreneurship education.

The first is the industrializing-entrepreneurs model. It treats the university as a factory, the curriculum as an assembly line, and students as products moving through a standardized process. Educators become foremen who guide students from opportunity recognition through launch and scaling, applying quality controls at each milestone. Success is measured by the number of students who complete the process and produce ventures that conform to institutional expectations.

The second is what I call the cultivate-butterflies model. In this approach, educators are not factory supervisors. They are gardeners. A gardener cannot manufacture a butterfly. A gardener can create the habitat in which transformation becomes possible. The gardener provides nourishment, protection, space, appropriate conditions, and time. Development cannot be forced into a uniform schedule, and not every organism follows the same path. Entrepreneurship education should work the same way.

Our responsibility is to create environments in which fragile ideas can emerge, be tested, fail safely, change direction, and occasionally undergo metamorphosis. Students need knowledge, financial discipline, ethical judgment, and rigorous feedback. But they also need mentors, diverse networks, real-world experience, periods of reflection, and permission to explore possibilities that do not neatly fit predetermined categories. Structure is necessary, but it should function as a trellis rather than a cage.

Ms. Güler interprets her findings primarily as evidence that entrepreneurship education serves a screening function. Students may learn more about business failure, capital requirements, opportunity costs, and the daily demands of ownership. Some may then make the informed decision not to become entrepreneurs. That can be a valuable educational outcome. I have never believed that the purpose of entrepreneurship education is to pressure every student into launching a company. Helping a student recognize that business ownership is not the right path—or not the right path yet—may be more responsible than adding another weak venture to a university's annual report.

But screening can occur in two very different ways. Developmental screening helps students discover their abilities, motivations, timing, and appropriate pathways through experimentation, mentoring, and reflection. It respects the possibility that a student may become an entrepreneur later, pursue entrepreneurship within an existing organization, or create value through a small community-based enterprise.

Industrial screening judges students and ideas against standardized milestones and institutionally preferred models of success. It can favor ventures that appear scalable, technologically sophisticated, and attractive to investors while discouraging those that are smaller, slower-growing, locally grounded, or unconventional.

This distinction becomes especially important because Ms. Güler finds that the entire decline in venture formation occurred among small businesses. Universities and policymakers have become fascinated with high-growth startups, disruptive technologies, and billion-dollar "unicorns." Small businesses are often treated as less significant because they do not attract venture capital or promise extraordinary growth. That view is dangerously incomplete.

Small businesses are part of the economic and social infrastructure of viable communities. Salons, restaurants, repair shops, retailers, contractors, family businesses, consultants, and neighborhood service firms create livelihoods, provide essential services, build local wealth, and help hold communities together. They offer pathways into economic participation for people who may never enter elite startup ecosystems. A healthy economy needs entrepreneurial biodiversity. It needs high-growth firms, but it also needs small, locally rooted enterprises. An educational system that discourages the latter without producing more of the former should concern us.

The proper response to Ms. Güler's study is not to dismantle entrepreneurship education. It is time to reconsider what we expect from entrepreneurship education and how we design it.

Immediate business formation is an incomplete measure of success. Programs should also evaluate whether students improve their judgment, become more capable of acting under uncertainty, build durable networks, learn from failed experiments, strengthen existing organizations, and create economic or social value in their communities.

We should ask whether our programs develop independent thinkers or merely teach students to follow an approved entrepreneurial process. We should ask whether our curricula preserve diverse forms of enterprise or privilege a narrow image of the venture-backed startup. Most importantly, we should ask whether our classrooms and ecosystems create the conditions for genuine transformation.

Those of us who helped entrepreneurship education gain acceptance should be proud of how far the field has come. But we should not confuse ubiquity with effectiveness. Universities have demonstrated that they know how to build entrepreneurship programs. They have not yet

demonstrated that those programs consistently cultivate entrepreneurs. After more than four decades in this field, I remain convinced that entrepreneurship can be learned and that educators play an essential role. But entrepreneurs cannot be manufactured according to a standardized university formula. They must be cultivated.

[i] Guler, Elif Nisa, Does Teaching Entrepreneurship Produce Entrepreneurs? (February 01, 2026). Available at SSRN: https://ssrn.com/abstract=6244621 or http://dx.doi.org/10.2139/ssrn.6244621

Here is a 200-word abstract based on the paper's central argument and evidence.

This paper examines whether contemporary university entrepreneurship education cultivates entrepreneurial development or increasingly "industrializes entrepreneurs" through standardized curricula, prescribed milestones, and institutionally preferred measures of success. Drawing on more than four decades of experience in entrepreneurship education, the paper responds to Elif N. Güler's study, "Does Teaching Entrepreneurship Produce Entrepreneurs?" Güler analyzes the introduction of undergraduate entrepreneurship programs at more than 150 U.S. universities using career histories for over 300,000 graduates. Her findings indicate that exposure to formal entrepreneurship education reduced immediate postgraduation business formation by approximately 10.7 percent. The decline was concentrated entirely among small businesses, with no detectable increase in growth-oriented ventures, delayed entrepreneurial entry, or long-term business continuation.

The paper argues that these findings challenge the assumption that expanding entrepreneurship degree programs necessarily produces more entrepreneurs or stronger entrepreneurial outcomes. It contrasts an industrial model, in which students move through standardized stages from idea recognition to launch and scaling, with a "cultivate-butterflies" model that views educators as gardeners who create developmental habitats for experimentation, mentoring, reflection, and transformation. The paper concludes that entrepreneurship education should preserve entrepreneurial biodiversity, support locally rooted small businesses, and evaluate success through broader measures of judgment, resilience, networks, community value, and long-term entrepreneurial capacity.

This essay contributes to the literature by connecting new causal evidence on the effects of university entrepreneurship degree programs with a conceptual critique of standardized entrepreneurship education, and by proposing the cultivate-butterflies model as an ecological, developmental alternative that preserves entrepreneurial diversity, supports locally rooted ventures, and evaluates success beyond immediate business formation.