



what works centre for
local economic growth

Toolkit Business advice Training

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What is it and what does it aim to do?

Training involves publicly-funded courses delivered to existing firms, or to individuals aiming to start a business. Start-up (or entrepreneurial) training aims to increase the likelihood that an individual successfully launches a new business. For existing firms, training aims to improve business performance, for example, in terms of business growth, innovation or survival.

How effective is it?

The evidence suggests that start-up training usually leads to a higher probability of launching new ventures. Training for new entrepreneurs on a specific element of running a business, such as financial management or pitching, generally appears to have positive effects. However, while start-up training may have a positive effect on business creation, this does not necessarily imply a long run effect on business performance (for example, on sales, or employment) or survival.

The evidence on existing firms is limited and findings on impact mixed (depending on the study and outcome).

How secure is the evidence?

The evidence base on training is large compared to some other areas of business support. We found 13 studies that examined the effectiveness of training and met our evidence standards. Three studies are scored at SMS 5 on the Maryland Scale, two at SMS 4, five at SMS 3, and three at SMS 2.¹

Only one study comes from the United Kingdom (UK) with six studies from the United States (US). The remaining six studies each come from a different OECD country. The Annex provides summaries of each study.

More rigorous studies are required to better understand impacts on different outcomes and to establish cost effectiveness.

Is it cost effective?

Four of the 13 studies present information on costs including two that evaluate the same programme.

The evidence on cost effectiveness is mixed. Two studies conclude that business training courses are cost effective with benefits that exceed the costs. These evaluations both related to programmes that targeted specific groups (female entrepreneurs and construction businesses). Two studies evaluate the same programme and find that its overall costs exceeded its benefits. However, the programme was cost effective for unemployment benefit recipients.

One limitation is that most studies do not consider potential displacement effects (i.e. if these benefits come at the expense of negative effects for non-participating firms). Another limitation is that whilst programmes may be cost effective in delivering short-term improvements, programme benefits often do not seem to persist, so programmes may not be cost effective over the longer-term.

Things to consider

- Is start-up training good value for money? If there are no persistent effects of start-up training on the performance of new ventures in the long run, the cost effectiveness of such schemes should be interpreted carefully.
- Are there particular groups that would benefit more from training? It may be more cost effective to target specific groups or industries.
- How long should training or other forms of support (e.g. subsidised consultancy services) continue post start-up? Training is effective in increasing start-up rates but does not appear to improve performance for these firms once established. In contrast, training provided to existing firms may improve performance (although this is based on a limited number of studies).
- Are gains coming at the expense of other local firms? If so, this will reduce the net benefits of the programme. This is more likely to be a problem for firms that serve local markets.

¹ For more information on how we rank the robustness of evaluations, see our introduction to the Scientific Maryland Scale: <http://www.whatworksgrowth.org/resources/the-scientific-maryland-scale/>

Annex: Evidence on training for business support

Business support is information, structured advice, or longer-term mentoring provided to firms by government-funded programmes. Such interventions typically aim to increase rates of firm creation, to improve business survival, and to promote business productivity and employment growth. These interventions are justified economically where there is a lack of information available to firms (for example, where the firm is unaware of what advice is available to them) or where there are wider economic impacts of giving advice to a single firm (for example, where innovative behaviour leads to ‘spillovers’). In our toolkits, we focus on five forms of business support outlined below.

Box 1: Five types of business support

Public advisory services are programmes where the counselling or advice comes directly from a publicly-employed official or institution such as a local business centre.

Business mentors describes programmes where the public sector does not provide advice directly but acts in a financing or ‘matchmaking’ role – putting SMEs in touch with mentors from the private sector.

Subsidised consultancy describes programmes where the firm is given a voucher or grant to cover all or part of the costs of private sector consultation. In some models, the public sector may help the firm find the appropriate consultancy service, however, the primary role is financing rather than matchmaking (in contrast to business mentors).

Training covers programmes where individuals from firms receive training in business or entrepreneurship. In the case of entrepreneurs this may be training focussed on how to start up a firm.

Tailored support may involve any of the four types of support above (or other types), but where advice is tailored to the specific firm or entrepreneur’s requirements. This often involves a greater intensity of support and possibly a combination of several types of support.

We focus in this toolkit on publicly-funded training courses aimed at individuals who want to start a business, or to existing firms.

We looked for evidence that evaluated the effect of training that aims to either:

- increase the probability of starting a firm; or
- improve firm performance in the form of higher turnover or profits, more innovation, or longer survival.

We focused on evidence from the OECD, in English. We considered any study that provided before-and-after evidence or cross-sectional studies that controlled for differences between firms or participants receiving different kinds of support. We also included more robust studies that compared changes to participants with a control group or that used a source of randomness in the provision of support to estimate a causal effect. We placed greater emphasis on studies with stronger methods.

When we first developed this toolkit in 2016, we found 10 studies that looked at the effectiveness of training in business support. We found five additional studies when we undertook this update. The studies identified as part of the update all start with the letter U (e.g. U411). One study cited in the original toolkit (243) was a working paper, which has now been published – we use this later publication. We removed two studies that were in the original toolkit – one as the paper is no longer in the public

domain (242) and one because the evaluation findings are only available by request (244).

Nine studies consider training courses aimed at individuals who want to start a business (8, 12, 227, 233, 239, 240, 241, U407 and U410). Four studies consider the impact of training for existing firms (243, U408, U409 and U411). A breakdown of the studies by outcome and overall finding is provided in the tables below.

Figure 1: Training for start-ups²

Outcome	Positive	Zero	Negative	Mixed	Total evaluated	No. positive
Business pitch quality	U407	-	-	-	1	1/1
Decreased business costs	U410	-	-	-	1	1/1
Employment	240	008, 233	-	227	4	1/4
Firm survival	-	239, U410	12	-	3	0/3
Income/wages	239	227, 233	-	-	3	1/3
Profits	U410 ST	U410 ^{LT}	-	-	2	1/2
Sales/turnover	240	233	-	-	2	1/2
Started firm	008, 227, 233 ST , 239, 240	233 ^{LT} , 241,	-	-	7	5/7
Unemployment benefit receipt	-	227	-	-	1	0/1

Figure 2: Training for existing firms

Outcome	Positive	Zero	Negative	Mixed	Total evaluated	No. positive
Competitiveness of bids	U409	-	-	-	1	1/1
Debt levels	-	-	U408	-	1	0/1
Firm survival	-	243, U409	-	-	2	0/2
Income/wages	243	-	-	-	1	1/1
Interest rates charged	-	U408	-	-	1	0/1
New debt use	-	U408	-	-	1	0/1
Productivity	-	-	-	U411	1	0/1
Profits	243 ST , 243 ^{LT}	U411	-	-	2	2/3
Sales/turnover	243 ST , 243 ^{LT}	-	-	-	1	2/2

2 When studies examine outcomes over multiple time periods, we use ST and LT to differentiate between the effects in the short term (ST) and long term (LT).

The evidence

Training for start-ups

The evidence suggests that training usually leads to a higher probability of launching new ventures. Training for new entrepreneurs on a specific element of running a business, such as financial management or pitching, generally appears to have positive effects. However, while start-up training may have a positive effect on business creation, this does not necessarily imply a long run effect on business performance (for example, on sales or employment) or survival.

Study 8 (SMS 2) evaluates the effect of entrepreneurial training on new ventures in the US in 2004. Using individual level data, the study finds that the number of entrepreneurship-focused courses taken positively relates to business creation, even when controlling for counselling hours and other additional support that the entrepreneurs might have taken before enrolling to the programme. An additional entrepreneurship course increases the probability of starting a new firm by 62 percent. However, when examining business performance, the study finds no effect on business growth, measured as an increase in employment, six to eight years after the venture is launched.

Study 12 (SMS 3) examines the impact of support for those claiming unemployment benefit to start a business in Germany between 2000 and 2005. All participants received financial support, with additional support available including training, coaching, and start-up support targeted at specific industries or groups in a region. Using individual level data, the study evaluates the impact of each of these forms of business support (on top of general advice) on firm survival measured as exits from self-employment. Training had a duration of between four and 12 weeks. The endurance of self-employment is examined by considering the inverse – i.e. whether participants have any subsequent periods of employment or unemployment. The study finds training has no effects on exits into employment, and increased exits into unemployment three years after enrolment. However, the study suggests that training may help entrepreneurs evaluate the potential of their business, encouraging those with weaker prospects to exit from self-employment.

Studies 227 (SMS 5) and 233 (SMS 5) look at the impact of Project GATE (Growing America Through Entrepreneurship), a micro-enterprise programme aimed at supporting start-ups that was implemented as a randomised controlled trial in the US. The entrepreneurship training programme combined elements of classroom training and one-on-one business counselling, and it is not possible to separate the effects of each of these two forms of support. **Study 227** uses data on individual entrepreneurs finding an increased probability of owning a business in the first few quarters after random assignment. It also found an increased chance of being self-employed for the first few quarters, decreased chance of wage employment for some quarters but found no effect on total employment. There was little or no impact on earnings from self-employment, wage employment or total employment. Finally, the study finds no, or very little, impact on receipt of unemployment benefit. **Study 233**, using the same data, also finds that the project has limited impact on business ownership. Ownership increases by 13 percentage points in the short run but this effect disappears 6 months after training completion. In addition, the study finds no effects on business sales, earnings or employment. Overall, neither Study 227 nor 233 recorded any long-term benefits from the GATE programme.

Study 239 (SMS 3) evaluates the effects of the Junior Achievement Company Program in Sweden over the years 1994 to 1996. This programme delivers entrepreneurial training courses to upper secondary students to promote entrepreneurial entry and subsequent business survival. Using individual level data,

the study finds that participation in the programme increases the likelihood of starting a new business by at least 20 percent and increases long-term entrepreneurial income by 10 percent. However, the study does not find any significant effect of training courses on the survival of these new ventures.

Study 240 (SMS 2) estimates the impact of the Berger entrepreneurship programme on firm creation and firm performance for new start-ups. The programme provides training to business undergraduate and graduate students at the University of Arizona in the US. Using individual level data, the study finds that entrepreneurship students were 11 percent more likely to own their own businesses after graduation. The study also finds that these new ventures had more than five times the sales and employment than those of other students who started a business.

Study 241 (SMS 2) evaluates the effects of delivering training to students at business colleges in Finland on the probability of starting a new business. Using individual level data, the study does not find an effect on the probability of participants starting a firm.

Study U407 (SMS 4) looks at the effect of a 2015 US programme training entrepreneurs to pitch their business ideas. Using individual data from entrepreneurs who participated in an elevator pitch programme, the study finds that training increases the use of best practices in business pitches, even when controlling for individual characteristics. The training has no effect on investor's evaluations of business pitches on average, but effects vary across investor experience and quality of pitches.

Study U410 (SMS 4) examines the impact of a short mandatory tax training on business outcomes in the Netherlands from 2008 to 2011. The programme was conducted in collaboration with the tax authorities and participants in the control and treatment groups were randomly selected from a group of first-time entrepreneurs. The programme delivers training for entrepreneurs about fiscal regulations and tax liabilities, while also helping them structure their cashflows. Using individual level data, the study finds that trained entrepreneurs have higher profits compared to those who did not receive training one year after enrolment. However, the impact of training on profits disappears two years after implementation. The study also finds that training is associated with decreasing business costs, and this appears to be driven by a more efficient management of finances, although this is not tested empirically. The intervention has no effect on business survival.

Training for existing firms

The evidence on existing firms is limited and findings on impact mixed (depending on the study and outcome).

Study 243 (SMS 5) evaluates the effect of being part of a 48-hour business skill training programme in Mexico (CREA) in 2009.³ This scheme aims to help female entrepreneurs enhance their basic business skills and improve their firms' performance. The programme consists of four hours of instruction per week for six weeks. Using individual level data, the study finds that participants experience a 23 percent increase in standardised profits one year after the programme. The study also finds a significant effect on weekly revenues and household income post-participation. The positive effects on revenues and profits persist two-and-a-half years after the intervention takes place. However, the study also finds no statistically significant impact on survival.

Study U408 (SMS 3) evaluates the impact of a financial literacy programme on debt and credit use in Chile in 2012 and 2013. Targeted at low-income micro-entrepreneurs (employing less than 10

³ Study 243 appeared as a working paper in the previous edition of the toolkit. It has now been published in a peer-reviewed journal. We have used the later publication in this toolkit.

employees) who had previously completed a four-month entrepreneurship training, the programme provided four hours of training per day over one week focusing on financial planning, savings and investment decisions. Using individual data, the study finds that the programme decreases the levels of debt one-to-three months after the training in two regions, by £107 and £82 respectively, but had no effect in a third region. Debt is also lower at four-to-five months amongst participants in these two regions, but the effects are not statistically significant. It was only possible to look at effects in one region at six-to-eight months, with the study finding debt continued to be lower than in control group. The intervention has no effect on the level of interest rates entrepreneurs are charged or the probability that they take on new debt.

Study U409 (SMS 3) examines the effects of a bidder training programme for road construction contracts in the US in 2001. The programme targets disadvantaged businesses including those owned by minorities, veterans or women, small businesses, and businesses that historically have been underrepresented in state business. Participating firms receive training that prepares them to bid and execute contracts, as well as mentoring services. A bulletin announcing the firms that have received the training is then circulated, making rival firms aware of the firms that completed the training. Using firm level data, the study finds that participating firms submit more competitive tenders, 2 percent lower than those from firms that are ineligible or have yet to train. In auctions where the presence of trained businesses is flagged before the auction begins, ineligible firms also lower their bids. The study finds that the training has no effect on business survival.

Study U411 (SMS 3) examines the effect of training employees and managers in the food and accommodation sector in the UK between 2002 and 2003. Given the focus of this toolkit, only the findings on management training are presented. This included two programmes – one that aims to enhance managerial skills and one that focuses on human resource management skills. Using firm level data, the study finds that neither of the programmes have significant impacts on business profits. Firms receiving the managerial skills training have 22 percent higher sales revenue per employee (a measure of productivity) relative to unassisted firms two years after completion. The study finds that the training on human resource management skills does not have significant impacts on sales revenue per employee.

Cost effectiveness

The evidence on cost effectiveness is mixed. Two studies conclude that business training courses are cost effective with benefits that exceed the costs. These evaluations both related to programmes that targeted specific groups (female entrepreneurs and construction businesses).

Two studies evaluate the same programme and find that its overall costs exceeded its benefits. However, the programme was cost effective for unemployment benefit recipients.

Study 227 reports a full cost benefit analysis for project GATE. This programme combines elements of both training and advice, and it is not possible to attribute costs or benefits to either form of support. The cost to society of implementing the programme was £726 per participant in 2005.⁴ The effect of the programme was to (temporarily) increase self-employment at the expense of employment. This led to an increase in self-employment earnings but a decrease in salary earnings. On average the net effect is a cost of £938 to society per participant. However, for the unemployment insurance (UI) group, who

4 Using the 2005 USD-GBP exchange rate of 0.550022

experience a larger increase in self-employment earnings than the broader population of participants, there was a net benefit of £1,204 per participant. The conclusion is that project GATE is cost effective for UI recipients. One problem with these cost effectiveness calculations is that the benefits are based on differences between the treatment and control groups that are statistically insignificant. This means that the actual effect could still be zero and that the differences reflect chance. **Study 233** re-examines the GATE using the same data.

Study 243 presents cost effectiveness figures for a Mexican programme (CREA) providing training to female entrepreneurs. These figures account for potential displacement effects, where assisted firms displace the activity of unassisted firms. The average increase in standardised profits is estimated to be the 23 percent among programme participants, while the daily profits of untreated entrepreneurs are estimated to decrease by 13 percent. The study shows that the pre-participation daily profits of the firms who enrol in the programme were £7.⁵ Therefore, given the estimated effects, the daily increase in profits was £1, suggesting an increase in profits (in perpetuity, discounted at 7 percent) of £1,420. Comparing these figures with a cost of the CREA programme of around £35 per participant, the scheme is highly cost effective.

Study U409 presents cost effectiveness figures for a procurement training programme. Using expense data from 2005 to 2012, the study estimates that the programme costs about £110,000 per year.⁶ Since firms that received training have lower bids than all other firms and given that the winning bid is lower when firms that received training participate in auctions, the study argues that the programme generates substantial costs savings at low cost. The study estimates cost savings of over £8.8 million per year.

5 Using the 2009 USD-GBP exchange rate of 0.641169

6 Using the 2005 USD-GBP exchange rate of 0.550022

Evidence reviewed

Ref. No	Reference
008	Chrisman, J.J., McMullan, W.E., Kirk Ring, J., and Holt, D.T. (2012): "Counseling assistance, entrepreneurship education, and new venture performance", <i>Journal of Entrepreneurship and Public Policy</i> , 1(1), 63-83.
012	Oberschachtsiek, D. and Scioch, P. (2015): "The outcome of coaching and training for self-employment. A statistical evaluation of outside assistance support programs for unemployed business founders in Germany", <i>Journal of Labour Market Research</i> , 48, 1–25.
227	Benus, J., Shen, T., Zhang, S., Chan, M. and Hansen, B. (2010). "Growing America Through Entrepreneurship: Final Evaluation of Project GATE". Washington DC, US Department of Labor Employment and Training Administration.
233	Fairlie, R.W., Karlan, D., and Zinman, J. (2015). "Behind the GATE Experiment: Evidence on Effects of and Rationales for Subsidized Entrepreneurship Training". <i>American Economic Journal: Economic Policy</i> , 7(2), 125–161.
239	Elert, N., Andersson, F. and Wennberg, K. (2015). "The Impact of Entrepreneurship Education in High-School on Subsequent Entrepreneurial Performance" IFN Working Paper No. 1063, Sweden.
240	Charney, A., and Libecap, K. E. (2000). "The Impact of Entrepreneurship Education: An Evaluation of the Berger Entrepreneurship Program at the University of Arizona, 1985–1999" Eller College of Business and Public Administration, University of Arizona.
241	Brannback, M., Heinonen, J., Hudd, I. and Paasio, K. (2005). "A Comparative Study on Entrepreneurial Opportunity Recognition and the Role of Education among Finnish Business School Students." Åbo Akademi University.
243	Calderon, G., Cunha, J.M. and De Giorgi, G. (2013). "Business Literacy and Development: Evidence from a randomized controlled trial in Rural Mexico", <i>Barcelona GSE Working Paper Series, Working Paper No. 742</i> ⁷
U407	Clingingsmith, D., and Shane, S. (2018). "Training aspiring entrepreneurs to pitch experienced investors: Evidence from a field experiment in the United States", <i>Management Science</i> , 64(11), 5164-5179.
U408	Martínez, C., and Puentes, E. (2018). "Micro-entrepreneurship debt level and access to credit: Short-term impacts of a financial literacy program", <i>The European Journal of Development Research</i> , 30(4), 613-629.
U409	De Silva, D. G., Hubbard, T. P., and Kosmopoulou, G. (2020). "An evaluation of a bidder training program", <i>International Journal of Industrial Organization</i> , 72, 102661.
U410	Nagel, H., Huber, L. R., Van Praag, M., and Goslinga, S. (2019). "The effect of a tax training program on tax compliance and business outcomes of starting entrepreneurs: Evidence from a field experiment", <i>Journal of Business Venturing</i> , 34(2), 261-283.
U411	Georgiadis, A., and Pitelis, C. (2016). "The Impact of Employees' and Managers' Training on the Performance of Small- and Medium-Sized Enterprises: Evidence from a Randomized Natural Experiment in the UK Service Sector", <i>British Journal of Industrial Relations</i> , 54:2, pp. 409–421.

7 Study 243 appeared as a working paper in the previous edition of the toolkit and its findings have now been revised and updated as the paper is now published.

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