Business Skills Training

Technical Report for the Youth Employment in sub-Saharan Africa Toolkit

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Technical reports are intervention-specific summaries The report is based on the relevant studies for sub-Saharan Africa contained in the Youth Employment Evidence and Gap Map (EGM). This report is prepared by Ashrita Saran, Director Evaluation and Evidence Synthesis, Global Development Network, and Howard White, the Research and Evaluation Centre. The meta-analysis was performed by Ashrita Saran.

About this technical report

This technical report is one of a series of technical reports being produced to document the evidence base for interventions to increase youth skills and employment in sub-Saharan Africa. The report is based on relevant studies for sub-Saharan Africa contained in the Youth Employment Evidence and Gap Map (EGM).

The purpose of this report is to inform the content of the What Works for Youth Employment in sub-Saharan Africa Toolkit. This report provides results from both the quantitative evidence from impact evaluations and the qualitative evidence from process evaluations. The former is the basis for the impact rating and the latter the lessons from implementation. The critical appraisal of the studies, which was undertaken for the EGM, provides the basis for the confidence in study findings.

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Abbreviations

BDS	Business Development Services
DRC	Democratic Republic of Congo
EGM	Evidence and Gap Map
ELA	Empowerment and Livelihood for Adolescents
EPAG	Economic Empowerment of Adolescent Girls and Young Women
HDAK	Huguka Dukore Akazi Kanoze
ILO	International Labour Office/Organization
ITT	Intention to treat
JPYES	Joint Programme on Youth Employment in Somalia
KYEP	Kenya Youth Empowerment Project
KYEOP	Kenya Youth Employment and Opportunities Programme
LYCI	Training for Rural Economic Empowerment
MSME	Micro, small and medium-size enterprises
NGO	Non-governmental organization
NUYEP	Northern Youth Entrepreneurship Programme
NYEP	National Environment Youth Project
QIECP	Quick Impact Employment Creation Project
RCT	Randomized Controlled Trial
STRYDE	Strengthening Rural Youth Development through Enterprise
TREE	Training for Rural Economic Empowerment
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization

USAID	United States Agency for International Development
WEP	Women Entrepreneurship Programme
WINGS	Women's Income Generating Support
YEEP	Youth Employment and Empowerment Programme
YESP	Youth Employment Support Project
YVRDP	Youth Volunteers Rebuilding Darfur Project

Plain language summary

What is this report about?	This technical report looks at the evidence in English of business skills training on employment, earnings, skills and business practices of young people.
What are business skills training programmes?	Business skills training programmes for youth train young people in the knowledge and skills necessary to start, manage, and grow their own businesses. These programmes may cover a range of topics including vocational skills, financial planning, marketing, business strategy, and life skills such as resilience and financial literacy. For example, the "Be Your Own Boss" Programme in Rwanda is part of the USAID-funded Huguka Dukore Akazi Kanoze (HDAK) initiative, which offers a 30-hour training package focused on entrepreneurial and management skills, along with soft skills training.
In what context are business skills training programmes implemented?	Business skills training programmes focus on entrepreneurship development, micro, small, medium enterprises (MSMEs) support, vocational education, community development, post-conflict recovery, and climate change adaptation. These interventions have been directed toward both rural and urban environments with equal emphasis. However, there are relatively few initiatives aimed at engaging youth in the agricultural sector.
What are the main design choices?	Design choices include: targeting of different youth demographics, the duration and content of training sessions, the selection of trainers, and the cost implications for implementing agencies.
How are business skills training programmes expected to work?	As youth gain confidence and competence in business management, they are more likely to start and grow successful enterprises, creating jobs and contributing to economic expansion. Business skills training equips participants with both technical knowledge relevant to business operations (e.g., financial management and marketing) and soft skills (e.g., communication and problem-solving). By empowering youth with business skills, these programmes aim to encourage the establishment of youth-owned private enterprises. These can have multiplier effects on the economy. As participants start businesses, improve their employment status or add to job creation and contribute to production by buying inputs from other producers. Additionally, the increased income of participants can lead to higher local spending on goods and services, stimulating consumption and further economic activity.
What sort of activities do business skills training	In addition to the training itself, business skills training programmes in sub-Saharan Africa support a range of activities, including training

programme support?	of trainers (ToT), online platforms and development of vocational training institutes and safe spaces such as clubs.
Implementation issues	The major implementation issues identified include project delays due to slow fund disbursement, funding shortfalls, lengthy procurement processes, lack of coordination among stakeholders, inadequate infrastructure, and insufficient staffing, all of which affect the effectiveness of youth employment projects in various countries.
The effects of business skills training programmes	Business skills training programmes have a positive effect on employment, work income, skills and material welfare. However, the business training intervention had a small negative effect on emotional state and business performance. This suggests that simply providing training without additional support mechanisms may not be sufficient to significantly improve outcomes for young people in the region. But when combined with other interventions (multicomponent interventions) they yield significantly positive results. The effect of the intervention was substantially greater for women compared to men or mixed groups. Qualitative data support the sense of self-worth and self-efficacy resulting from wage employment. However, there is no evidence of long-run effects.
Cost analysis	Business skills training interventions are cost-effective, yielding substantial long-term economic returns and favorable cost comparisons, with initial investments like the EPAG program demonstrating significant income increases and minimal financial burden relative to benefits.
How strong is the evidence base?	There is medium confidence in the evidence of effects (21 impact evaluations) and medium confidence in findings from implementation evidence (21 process evaluations).
Implications for research	The research indicates that multicomponent interventions (integrated approaches combining training with financial support, mentorship, and other forms of assistance) are crucial for enhancing youth employment outcomes, highlighting the need for further investigation into these comprehensive strategies.
Implications for policy and practice	Policymakers should prioritize multicomponent interventions to improve the effectiveness of youth employment programmes, ensuring that interventions are resilient, adaptable, and specifically designed to address the unique challenges and needs of female participants in conflict-affected areas.

What are business skills training programmes?

Business skills training can focus on vocational skills necessary for a business but also on business-relevant topics such as financial planning, marketing, and business strategy. It may also be supported by developing life skills such as resilience and financial literacy. For example, the *Be Your Own Boss Programme* offered as part of Rwanda's USAID-funded *Huguka Dukore Akazi Kanoze programme* was a 30-hour training package focused on entrepreneurial and management skills. The project also offered soft skills training (Dexis Consulting Group, 2019).

The rationale for providing business skills training to youth in sub-Saharan Africa is rooted in the region's challenging employment landscape. Many African countries face high unemployment rates, particularly among young people, due to low economic development, rapid population growth, and limited job creation in the formal sector (Baah-Boateng, 2016). Traditional employability interventions that focus solely on making youth more attractive to potential employers may not be sufficient or effective in such an environment. Employability interventions typically include activities like resume writing, interview skills, and professional development workshops. While these are valuable skills for individuals entering the job market, they do not address the fundamental issue of job scarcity (Datta et al., 2018).

Therefore, business skills training is a strategic response to the lack of job opportunities. By equipping youth with the knowledge and skills to start and manage their own businesses, they are empowered to create jobs for themselves and others. This approach helps individuals become self-sufficient and contributes to economic growth and job creation, as successful entrepreneurs can provide employment for others. The specific types of interventions used vary, including vocational training, financial literacy training, agricultural training and market linkages, training on modern farming techniques, business training and startup capital and community-driven development programs.

In developed countries, business skills training is more about ongoing skill improvement tied to education and industry needs. In less developed countries, the focus is more on teaching

basic skills, improving reading and math, and giving a basic understanding of business. For example, the Kenya Youth Employment and Opportunities Programme (KYEOP) helps young people learn to start and run businesses, manage money, and make business plans. They also provide mentoring and support for getting money to help new businesses grow.

The way business skills are taught varies. Some interventions use traditional classrooms, while others try new methods like mobile learning and entrepreneurship boot camps. Using technology for teaching business skills is becoming more popular because it can reach more people and solve problems like being far away from training centres or having poor infrastructure.

How are business skills training programmes expected to work?

Business skills training programmes are expected to increase youth employment by equipping young people with the necessary skills to start their own businesses. The main causal process for these interventions is that skills acquisition will increase employability, either because those skills are in demand by employers or because the skills equip youth to start their own businesses. By starting their own businesses, young people create jobs not only for themselves but possibly also for other young people. Job creation may also occur through both production and consumption multipliers. The former refers to the demand of the business for supplies and equipment produced locally, and consumption multipliers refer to the effect of increased spending by the young person and their employees as a result of higher income.

However, for such programmes to be cost-effective, the improved earnings and job opportunities need to be sustained over a significant period to justify the investment in training. Despite this, achieving positive outcomes at a lower cost per participant is possible. For example, in the Kenya Youth Empowerment Project (KYEP), it was estimated that it would take approximately 14 months of sustained earnings for male participants - and just ten months for female participants - to offset the programme's costs (Honorati et al., 2015). Many of these programmes assess the effect of entrepreneurship education in conflict-ridden areas, the effectiveness of youth employment and skills programs, and the outcomes of initiatives targeting orphans and vulnerable children. Another example is the Beyond Bentiu Protection of Civilian Site (PoC) Youth Reintegration Strategy in Sudan, which highlights the role of business training in reintegrating youth into stable economic activities.

What are examples of business skills programmes in sub-Saharan Africa including design features?

Design features of business skills training programmes

The business skills training programmes listed in Table 2 exhibit a variety of design features tailored to their specific contexts and objectives. These features include the targeting of different youth demographics, the duration and content of training sessions, the selection of trainers, and the cost implications for implementing agencies.

Targeting: Not all interventions focused exclusively on disadvantaged youth. Some projects targeted more educated youth, such as the EU-funded RESET II programme in Ethiopia, which aimed at university or high school-educated youth (Altai Consulting, 2018). Similarly, the YouthMap Uganda project primarily engaged university graduates, with a small percentage of participants from technical colleges (Duggleby et al., 2015). The *Youth Employment and Empowerment Programme* (YEEP) in Sierra Leone included a Graduate Internship Programme specifically designed for university graduates (Adablah and Bockarie, 2018). Some projects set a target for the number of females in projects, usually fifty per cent (50%). For instance, the *Benin Youth Employment Project* pushed for mainstreaming gender by targeting and had several design features to support women's participation: the training schedule was compatible with household responsibilities, support was provided for childcare including allowing women to bring a second person to the training to care for their children, transport costs were paid and a mid-day meal provided (Cherukupalli, 2019). Some projects had gender targets but did not monitor them so it is not known if they were met or not – such as the *Youth Employment for Sustainable Development* project in Kenya which had a target that 30% of beneficiaries should be female (Karuga, 2012).

Training Sessions: The duration and format of training sessions varied significantly across programmes. For instance, the *Economic Empowerment of Adolescent Girls and Young Women (EPAG)* in Liberia offered a comprehensive six-month technical training program followed by a mentorship phase. The *Empowerment and Livelihood for Adolescents (ELA)* in Uganda provided vocational training, life skills, and financial literacy courses through community-based adolescent development clubs. In contrast, the *Women Entrepreneurship*

Programme (WEP) in South Africa condensed its training into a focused 6-day program emphasizing networking, mentorship, and financial aspects of business. The *Women's Income Generating Support (WINGS)* program in Northern Uganda combined cash grants with business skills training and follow-up support. The *Strengthening Rural Youth Development through Enterprise (STRYDE 2.0)* in Tanzania offered an intensive 3-month classroom training program with 96 hours of instruction on basic life and career skills. The *Training for Rural Economic Empowerment (TREE)* programme in Zimbabwe targeted disadvantaged youth with essential skills training (Calderone et al., 2022).

Choice of Trainers: The selection of trainers can significantly affect the quality of training. A study in Tanzania found that external trainers may be more expensive but often deliver better results, highlighting the trade-off between cost and training quality (Berge, 2012). Trainers help in skills acquisition for both youths and sometimes ToT. Trainers also help supply labour market information and award certificates to trainees (Ahmed, 2016).

Implementing Agency Costs: The administrative expenses, staff salaries, and operational costs associated with delivering training can vary widely among implementing agencies. As demonstrated in the Tanzanian *STRYDE 2.0* programme, efficient programme management and economies of scale can enhance cost-effectiveness (Calderone et al., 2022). Funds are used to provide financial support to institutions to buy equipment, help in the recruitment and training of trainers, the printing of certificates for youths, and dissemination of labour market information (Ahmed, 2016).

Venue and equipment: Especially in hard skills training, the necessary equipment is crucial for trainers to pass on the skills to the youths (Ahmed, 2016). This also includes a suitable venue, which is mostly a training centre or place of employment where training takes place.

Details of the selected programmes are listed in Table 1.

Table 1: Examples of business skills training programmes

The *Youth Volunteers Rebuilding Darfur Project* (YVRDP), in Darfur, Sudan offered training in microfinance, green business planning and natural resource management; provision of start-up micro grants, business development services, jobs fairs; and value chain development in agriculture (Abduljabar, 2015).
Economic Empowerment of Adolescent Girls and Young Women (EPAG) initiated by the Government of Liberia from 2010 to 2011 targeted young women between 16 to 27 years with basic literacy and numeracy skills but who are not enrolled in school for several months prior to programme initiation, residing in one of nine target communities in and around Monrovia. Implemented by four NGOs selected by the Liberian Ministry of Gender and Development through a competitive bidding process. This programme comprised a six-month intensive curriculum of classroom-based technical training, concentrating on skills with established market demand, succeeded by a subsequent six-month phase of mentorship and support to facilitate the participants' successful integration into wage employment or entrepreneurship. Service providers are responsible for developing training curricula and making arrangements for free childcare services. Performance bonuses are awarded to training providers that successfully place their graduates in jobs or micro-enterprises. (Adoha, 2014).
The *Empowerment and Livelihood for Adolescents (ELA)* in Uganda programme is a multifaceted programme which provided adolescent girls with the following: (i) vocational training, (ii) life skills training, and (iii) safe spaces. The business skills training comprises a series of courses on income-generating activities (preferably for self-employment), complemented by financial literacy courses. Publicly financed, implementers can be either public or private. The intervention is delivered from designated adolescent development clubs, fixed meeting places within communities. Clubs also host popular recreational activities. Club activities are led by a female mentor (Bandiera et al., 2020).
The *Women Entrepreneurship Programme (WEP)* in South Africa is a capacity building programme that provides skill training to female entrepreneurs. The 6-day training follows the educate for entrepreneurial performance model and covers topics such as networking, role-models, mentors and confidence building, and particularly pays attention to the marketing and financial side of business as these are considered to be two areas where women face the most challenges. At the end of the training, the entrepreneurs get a chance to submit their completed business plans to the partner agencies with a hope to get them financed (Botha et al., 2013).
The *Women's Income Generating Support (WINGS)* program implemented by an NGO in Northern Uganda provided cash grants of approximately US$50 and fundamental business skills training to women residing in a war-affected region characterized by extreme poverty and social exclusion. Business skills training was provided for three days, 24 hours in total. Three follow-up visits by trained community workers to monitor and support the business activities. Additional option of group training to form business support networks and spousal inclusion in training was also provided (four days, 32 hours in total) (Blattman, 2013, 2014, 2016 & 2019).
Strengthening Rural Youth Development through Enterprise (STRYDE 2.0) programme in Tanzania was a large-scale soft skills training program for youth to develop skilled employment. The programme also helped participants to draw up and fund concrete business plans for self-employment. The programme starts with an intensive 3-month classroom training. In two half-day sessions per week over 12 weeks, the training offers 96 hours on basic life and career skills (Calderone et al., 2022).
The UNIDO-supported project in Kismayo, Somalia, aims to counter violence and extremism by providing skills training and livelihood support to at-risk youth. The project focuses on constructing training centres, training the trainers, and directly supporting the training of youth in various skills that can lead to employment and self-sufficiency. By equipping at-risk youth with marketable skills and opportunities for

gainful employment, the project seeks to create a more resilient and peaceful community by addressing the root causes of violence and extremism among the youth population in Kismayo (Eischen, 2016).
The *Training for Rural Economic Empowerment (TREE)* programme was designed to provide essential skills training to youth aged 18 to 32, who were residents of 19 districts in Zimbabwe. The programme was implemented through a collaborative effort involving various service providers, including vocational skills trainers, and the ILO which focused on business skills, government trainers, and a local business service provider. This is a community-based technical and vocational skills development program. It is primarily focused on value chain development, skills upgrading, and group enterprise community projects for the youth who are out-of-school (Lachaud et al., 2018).
The *Northern Youth Entrepreneurship Programme (NUYEP)* provided 6-month training courses to the most marginalised and disadvantaged youth. These courses offered economic and psycho-social support through vocational training institutes (VTIs) and a 6-month post-training support. Diverse types of support was available including vocational skills training, soft employability skills training, life skills training, personal agency sessions, youth engagement and bridging activities and so on. Gateway Centres (GWC) recruit and refer youth to VTIs. YDP functions via a cluster model in which 7 GWCs take care of a small cluster of poorly developed VTIs and thus, ensure their capacity is enhanced (Montrose, 2016).
Lesotho's Youth Employment Programme put in place a National Youth Employment Action Plan (NYEAP) and a Nation Youth council to establish a positive policy environment for youth employment initiatives in the country. Another key element of YEP was an entrepreneurship development programme which sought to introduce ILO's Know About Business training programme to train and mentor young people. The recruited young people in Lesotho's YEP business training programme could also avail credit. Additionally, entrepreneurial support was made available to emerging young business owners by linking with existing small enterprises. (Morojele, 2008).
The *Youth Employment Project* in Mozambique combined micro, meso and macro level interventions to generate jobs within the tourism and construction sectors. Macro level interventions merged youth employment goals into national level policy, legal and regulatory frameworks. Measures introduced included national regulation set up for paid internships, dissemination workshops conducted and decent work workshops organised in the target areas. Meso level initiatives focused on facilitating young people's access to vocational and business training as per the needs of the market. Accordingly, YEP ensured, "the piloting and training of trainers on the ILO's Start and Improve Your Construction Business training package and the delivery of these trainings to youth and entrepreneurs". Similarly, in the Tourism sector, YEP joined hands with the private sector and the Employers organisation to conduct capacity building trainings. At the micro level, the project trained selected youth organisations to draft a business plan and provided financial assistance to 5 chosen plans. Additionally, a 'revolving fund' was made available to the recruited youth to help finance their business start-ups. They were also given mentoring and monitoring support (Nunez,R. 2010)
The *Youth Employment Support Project (YESP*) in Sierra Leone provided six months of classroom-based training covering technical skills, basic literacy and numeracy and financial literacy, as well as business skills, followed by an opportunity for a 3-months on the job-training (Rosas et al., 2017).

What has been the implementation experience of business skills training programmes?

This section presents findings on barriers to implementing business skills training interventions and good practices that support their successful implementation.

Poor or inadequate infrastructure and equipment

- The lack of adequate infrastructure and equipment, particularly in conflict-affected countries like Sudan, South Sudan, and Somalia, has a profound effect on the success of youth training projects. A number of projects were unable to hire sufficient staff on a long term basis and reduced training activities to remain functional. In the case of the *YVRDP* in Darfur, Sudan the project was only partially implemented due to lack of sufficient funding because the government did not provide its share of the budget allocation that was agreed with donors. The livestock, agricultural extension component of the project was not implemented at all (Abduljabar, 2015).
- Much of the equipment a youth training project supplied in Guinea needed to be functional and properly installed. Two photovoltaic power plants stopped working soon after installation, dryers could not be used because they were improperly installed, and a workshop installed by the project for the manufacture of Shea butter was not used because it was too far from the water source. Peelers and mills for the processing of fresh cassava were not operational, as beneficiaries had not received appropriate training (Diuof et al., 2017).
- The National Urban Youth Employment Programme (NUYEP) in Guinea faced severe budget constraints, leading to a shortage of staff for business counselling services. This, coupled with a general lack of well-qualified trainers, forced existing trainers to stretch their activities to reach more beneficiaries, focusing on group activities. The result was a lack of strong mutual relationships needed for successful mentoring (Montrose, 2016).

Project delays

- The evaluation of a youth training project in Guinea notes that "the management and procurement procedures implemented by UNIDO were much more complicated for the project. Procurement was largely carried out from Vienna, with little responsibility ceded to the field and Conakry offices. This greatly affected the capacity of the project to carry out its activities promptly. Putting field experts from each region under the direct supervision of an expert based in Vienna did not facilitate the implementation of activities or communication among staff in the field" (Diouf et al., 2017).

Lack of government commitment

- In Nigeria, the Delta state government launched a separate scheme rather than supporting scaling up the UNDP-funded project aimed at engaging disillusioned and ex-militant youths (Ahmed, 2016). As a result, the newly established multipurpose youth training centre was not gazetted for about ten years, from the inception of the project in 2006 to 2016, when the process evaluation was conducted. Therefore, the training centre lacked the mandate to operate as a government-accredited centre (Ahmed, 2016).
- A project to support vocational training in Guinea could not rehabilitate a training centre as originally planned as the funds were insufficient. This meant that the community infrastructure to be rehabilitated by youth trained at that centre was also not rehabilitated (Diouf et al., 2017).
- A number of projects were unable to hire sufficient staff on a long-term basis, and training activities were reduced to remain functional. In the case of the YVRDP in Darfur, Sudan, the project was only partially implemented due to a lack of sufficient funding because the government did not provide its share of the budget allocation that was agreed upon with donors. The livestock, agricultural extension component of the project was not implemented at all (Abduljabar, 2015).

Inadequate or unavailable funds

The unavailability of promised funds can potentially disrupt the implementation of planned activities. These issues are prevalent across youth employment programmes. For instance:

- For instance, in a project implemented in Darfur, Sudan the government's budget contribution of 40% was never provided and therefore the project was implemented with a budget deficit of 40%
- Training centres struggled to comply with documentation requirements in the Benin Youth Employment Project, causing delays in procurement and payment processes (Cherukupalli, 2019).
- An evaluation of a youth training project in Guinea noted that the management and procurement procedures implemented by UNIDO were overly complex. Procurement was mainly conducted from Vienna, and limited authority was given to field and Conakry offices. This greatly affected the project's ability to carry out activities in a timely manner (Diouf et al., 2017: p.14).
- In the YEEP in Sierra Leone, the absence of a development partners coalition for the youth sector led to a lack of coordination. This lack of coordination resulted in missed opportunities for synergies, such as shared resources and knowledge, which could have enhanced the project's effectiveness (Adablah, 2018).
- The *Lesotho Youth Credit Initiative* (LYCI) through the Youth Employment Programme encountered issues due to a poor working relationship and coordination problems between Moliko staff and YEP trainers, causing trainees to face conflicting demands (Morojele, 2009).

The effects of business skills training programmes

Overview

Business skills training programmes have a positive effect on employment, work income, skills and material welfare. However, the business training intervention had a small negative effect on emotional state and business performance. The findings also show that standalone training programmes did not positively affect getting people jobs, helping them learn new skills, or increasing their earnings. However, multi-component interventions showed a significant positive effect. These findings are based on meta-analysis, which averages the effect across all studies (see Figure A1.1 in the Annex).

The average effect from meta-analysis is commonly reported as a standardised mean difference (d), which is the difference in the mean in outcomes between treatment and control, divided by the standard deviation of the outcome. Rather than d, we report (Hedge's) g, which includes a small adjustment to d to account for bias in small samples. A g of less than 0.1 is considered a small effect, 0.1-0.2 is moderate and above 0.2 is a large effect.

The meta-analysis averaging across all effect sizes (reported more fully in Annex 1) finds that business skills training has a statistically significant but very small effect on employment (g=0.09). There is also a positive effect on material welfare (g=0.08), work income (g=0.07), and skills (g=0.12), with a slightly negative effect on the emotional state (g=-0.02) and business (g=-0.09). These negative effects are with respect to a control group who did not receive business skills training. There may be a period of adjustment where new skills are being integrated, during which business performance might temporarily dip. Additionally, business skills training may involve intensive learning and practice, which can lead to increased stress and pressure on individuals. Standalone training programmes or financial support did not positively affect getting people jobs, helping them learn new skills, or increasing their earnings. However, multi-component interventions showed a significant positive effect.

Overall these findings are low-confidence because of concerns about the included studies and the small number of included studies on the business and material well-being outcomes.

The effect size can be translated into an absolute and relative change in employment (see Annex 2 for details of the calculation) and the larger average effect size for youth employment (g=0.09). The average effect size for the effect on employment of g=0.09 is equivalent to a 8.1 increase compared to the control group. This statistic can also be converted into the number needed to treat which is 25: that is, for every 25 youth receiving business skills training, one additional person gains employment. This finding underscores these interventions' modest but significant effect on youth employment outcomes.

Findings by study

Table 2 lists examples of the effects of business skills training interventions.

Table 2: Studies of business skills training programmes in sub-Saharan Africa

Study	Intervention	Findings
Economic Empowerment of Adolescent Girls and Young Women (EPAG) business skills training programme in Liberia from 2010 to 2011		
Adoho et al. (2014)	Six months classroom training was provided on job skills (hospitality, computer skills, professional cleaning, office and driving) and Business Development Services (BDS) to 1200 young women between 16-27 years followed by six months follow-up support	Increased employment by 47% and earnings by 80% in the treatment group. Positive effect on empowerment measures including access to money, self-confidence and anxiety about future. However, in three of the nine communities where EPAG was delivered, the intervention had no effect or reduced employment rates. The EPAG intervention did not have a statistically significant effect on savings and loans or business performance
Growth and Employment (GEM) project in Nigeria		
Anderson & David (2022)	753 firms (each with two to 15 workers) into a control group and four treatment groups (training, consulting, insourcing and outsourcing). The first treatment group provided a mix of 25 hours online and	The findings show that business skills training alone does not have a significant effect on sales, profit or employment measures. Consulting showed improvements in business practices, with some evidence of effect on firm growth. Insourcing and Outsourcing: Significant improvements in business practices, especially in marketing and sales;

Study	Intervention	Findings
	12 days in-class business training and the second treatment group provided personalized consulting to the entrepreneurs, with firms receiving 88 hours of support.	outsourcing showed significant growth in sales and profits. But there was a negative effect on the time spent on financing and accounting functions and overall business practices in the first year. This could be due to various factors, such as the training content not being well-aligned with the businesses' needs, ineffective delivery of the training, or the businesses' inability to implement the learned skills effectively. There was a 10% improvement in marketing and sales in the second year however, these improvements were not statistically significant.
Empowerment for Livelihood (ELA) program provided adolescent girls aged 14-20 years with business skills training, life skills training, and safe spaces in Uganda		
Bandiera et al. (2018)	Trainers were chosen from community and provided a week-long initiation program as well as monthly refresher courses at community clubs.	Self-reported entrepreneurial skill increased in the treatment group by 8% and 67% of the adolescents girls were engaged in income-generating activities at the endline. At midline, rates of self-employment are near double those in control communities at baseline. At endline these rates remain 50% higher.
Promotion of Rural Initiative and Development Enterprise (PRIDE) business training programme for microfinance institutions in Tanzania		
Berge et al. (2012)	349 client who had existing loans from PRIDE were included and were offered twenty-one sessions, each lasting 45 min, and was offered for free at the premises of the microfinance institution. Training was offered in two groups: internal credit officer and professional trainers.	Findings show that the internal training had lower attendance and was perceived as less beneficial. Also, externally trained group had a better average score of 81.7% in terms of knowledge compared to the 75.7% of the internally trained group.
Women's Income Generating Support (WINGS) business skills training and cash grant programme in Uganda		
Blattman et al. (2013)	Four days business skills training was provided to the 1800 poorest and most-excluded women in the post-war regions in Northern Uganda.	The programme have a substantial effect on the monthly cash income of participants that increased by 98% compared to the control group, and there was a 33% increase in household spending, wealth, and the accumulation of durable assets among the treated. Savings tripled for the treated group,

Study	Intervention	Findings
		from US$16.36 to US$68.22. Both groups reported a reduction in psychological distress over time.
Blattman et al. (2014)	Five days business training was provided to the 15 most marginalised women in 120 villages in post-conflict Uganda. This was followed by group dynamics training four to five months after cash grants were received by the group.	The programme had a significant positive large effect for employment outcomes (SMD=0.86) and business survival (SMD=0.84). The treatment group had higher earnings (94% increase) than the control group. The proportion of people working in non-farm businesses doubles from 39% to 80%, work hours increase from 14 to 25 hours a week, compared to the control group. There is also an increase seen in durable consumption assets. Those in group dynamics villages report twice the cash earnings as those in standard treated village.
Blattman et al. (2016)	Five days business training was provided to the 15 most marginalised women in 120 villages in post-conflict Uganda. This was followed by group dynamics training four to five months after cash grants were received by the group.	The WINGS program led to substantial increases in all income measures by 46%. This includes a 66% increase in monthly cash earnings relative to the control group, although this amounts to US$5.19 in absolute terms. Durable consumption assets rose by 33%, and non-durable consumption increased by 29% relative to the control group. Food security improved slightly as a result of these income and enterprise increases, with the percentage of times going hungry in the past week falling from 20% to 10%. Savings more than tripled, increasing to US$54.
Women Entrepreneurship Programme (WEP) programme providing business skills training to women entrepreneurs in South Africa		
Botha et al. (2013)	Six-day training was provided to 180 female entrepreneurs, 116 of whom were in the experimental group and 64 in the control group	Before and after the WEP, all the individual variables in the business knowledge, entrepreneurial, and business skills factors showed statistically significant changes. One-third (33.3%) of the potential entrepreneur participants established their own businesses, while 34.0% of existing entrepreneurs started a number of different businesses. In addition, the number of workers, turnover, efficiency, and benefit all increase according to the respondents. However, the effect on emotional well-being was negative with a slight increase in the anxiety level of the women entrepreneurs.
A *micro-franchise programme* in Nairobi		

Study	Intervention	Findings
Brudevold-Newman et al. (2017)	Two-weeks business skills training. Young women aged 16 to 19 in three of the city's poorest neighbourhoods providing multi-component intervention (business skills training, vocational and life skills training together with start-up capital and ongoing business mentoring)	Findings suggest that the training component alone had no effect on individual productivity, earnings or business outcomes. The effectiveness of the franchise treatment were probably greatest among the 39% who actually launched businesses, relative to the 22% who only did some of the training but never launched businesses or the remainder of those assigned to the franchise treatment, who chose not to participate in the program
Strengthening Rural Youth Development through Enterprise (STRYDE 2.0), a large-scale skills training program for youth in Tanzania		
Calderone et al. (2022)	Intensive three-month classroom training in two half-day sessions per week over 12 weeks, the training offers 96 hours on basic life and career skills to 53,000 mostly under-employed young adults aged between the ages of 18 and 30.	The program increased women's economic outcomes, including income, savings, as well as engagement in the labour market, and quality of jobs for all participants. There were no significant effects on economic outcomes for male participants. There were significant effects on hard skills for both women and men and soft skills for women in terms of self-awareness and confidence.
Kenya Youth Employment and Opportunities Project (KYEOP) programme in Kenya		
Domenella et al. (2021)	Four days of business skills classroom training, four months of access to a digital Business Development Services (BDS) repository, and seven individual visits by a trained financial counsellor.	The findings show that business development services in the form of business training and counselling alone are ineffective and had no effect on business outcomes and employment. Nearly 80% report a negative change in income. However, business grants or a combination of business grants and BDS are twice as likely to have an operational business in the follow-up rounds compared to the control group, with statistically significant effect on both business survival and new business start-up.
Microenterprise programme providing both cash grant and loan in Uganda		

Study	Intervention	Findings
Fiala (2014)	Business owners from semi-urban locations across Uganda were randomly selected to receive loans, cash grants, loans paired with business skills training or cash grants paired with business skills training, or to be part of a control group.	The training programs evaluated in the study showed a mixed effect, with no significant differential effects observed for most interventions, except for men who received loans-men with access to loans-with-training report 54% greater profits. This effect increases slightly over time and is driven by men with higher baseline profits and higher ability. This outcome, along with the emerging body of research on business skills training, indicates that for training to be truly effective, it should be complemented with substantial capital investment. The long-term effect of interventions on business performance and profits are significant large and negative. The exploratory analysis reveal that the negative effect was due from family and appear to only be present for married women. This could be due to either increased demands on cash from the husband, or from the husband's family.
Business skills training of Agricultural Extension Development Officers (AEDOs) in Malawi		
Highfill (2017)	10-week agribusiness training intervention. The training workshop session lasted 2.5 hours, which combines both content and an interactive approach to learning, in the form of knowledge sharing with the youth groups and group discussions.	The results indicate that, on average, the treatment group experienced an improvement on agribusiness knowledge among youth of 3.7 percentage points from baseline to the endline, and they scored 1.6 percentage points higher than the non-treatment group at the endline. No effect was found on the wages or earnings.
Kenya Youth Empowerment Project (KYEP) combine business skills training and life skills training with internships		
Honorati (2015)	2-week life skill training, -weeks core business skills training, and 5-weeks sector-specific training programme in Kenya	15 months after the program ended, treatment increased women's probability of being employed by 4.5% and 6.5% for men. improvements in earnings were not robust, relative to the control group. Among those who completed the program, employment rates were 14.2 and 8.7 percentage points higher, respectively. Wages increased by 132% for women in treatment group. Overall, no effects on the likelihood of starting a new business, becoming self-employed, or working for a family firm were found, but they were

Study	Intervention	Findings
		more likely to open a bank account and females were more likely to save.
Training for Rural Economic Empowerment (TREE), a community based programme for disadvantaged youth for skill building in Zimbabwe.		
Lachaud et al. (2018)	Targeted 2173 unemployed and vulnerable youth, aged 18 to 32 youth as direct beneficiaries in 19 districts. TREE in Zimbabwe contained five sets of activities: skills training, technical/vocational and core work skills for youth; business management training for youth; post-training opportunities.	Intervention increased beneficiaries' income by US$787, as well as child and health expenditures by US$236 and US$101, respectively, compared with non-beneficiaries over the 2011–2014 programme implementation period.
Rosas et al. (2017)	Classroom-based trainings, on-the-job training and facilitation of access to microfinance were provided for nine months. Classroom-based training lasted six months	The results show that those trained were 3.1% more likely to be employed, and 4.1% more likely to be a first-time entrepreneur. No significant differences were observed between genders. Increased household resilience boosting consumption by more than 50%. The programmes had a slight negative effect on the emotional well-being of the participants. While the programmes were helping people in practical ways, they might also have caused some emotional strain
SPARK's Cooperative Support Programme (CSP) providing business mentorship and business skills training to cooperatives in agriculture sector in Rwanda		
Taqeem Initiative (2017)	100 cooperatives were chosen to receive SPARK's intervention, which was developed to be implemented in two consecutive cohorts: 40 **cohort 1** cooperatives and 60 **cohort 2** cooperatives (between June-November 2014).	Entrepreneurial training led to a significant positive effect on self-employment with 25.7% of youth registering their businesses, 28% acquiring income tax Personal Identification Numbers (PIN) compared to 12% in the control group, 9% registering their business name (6% control), and 9% obtaining County Government licenses (5% control). There was a negative effect on stress level of the participants in treatment group based on the daily earnings predictions for the respondents at the endline, as they appeared to be more uncertain about their daily earnings compared to their counterparts at

Study	Intervention	Findings
		the baseline. Negative effect was found on business practices as significant drop in monthly sales was observed in the treatment group, with a 47% decrease between the baseline and end-line, while the control group experienced only a 9% decrease in sales over the same period. Although these changes were not statistically significant at the 0.05 level for both the treatment and control groups, they nonetheless indicate a concerning trend.
Cultivate Africa's Future Phase I (CultiAF1) provides business mentoring and training in Kenya		
Wambalaba et al. (2021)	The Metro AgriFood Living Lab agribusiness training began in September 9, 2019 to November 28, 2019 for 300 participants in each county. Training sessions were conducted for 15-weeks sequentially to ensure consistency. Decentralised trainings were conducted at day care centres for young mothers.	Training led to increased awareness and attainment of business legal documents (11.6% in the trained group compared to 8.9% of the control group. Intervention led to a lower proportion (9.5% compared to 16.3% in the control group) of monthly sales being used for personal expenses among males in the treatment group, suggesting better financial management or reinvestment into the business. While not significant, but when treatment and mentorship are combined the results show that training and mentorship had a positive effect on sales where the treatment group had more sales than the control group.

Cost analysis

The evidence suggests that business training interventions can be cost-effective, particularly when considering long-term income increases and favourable cost comparisons with other programs. The initial investment in training can yield substantial economic returns, making these interventions a viable option for enhancing employability and income generation.

According to Anderson (2022), the cost of implementing business training, insourcing, and outsourcing interventions was standardized at approximately US$2,000 each, while business consulting was projected to be double that amount at US$4,000. This initial investment suggests a structured approach to training costs, but it is essential to analyze the returns on these investments.

Adoha's analysis indicates that the budget cost of the EPAG Business Development Training is equivalent to three years of increased income, suggesting a long-term financial benefit that outweighs the initial costs. This aligns with Bandiera's findings, which highlight that the program is highly cost-effective over a four-year evaluation period, with an overall cost of only US$17.90 per eligible adolescent girl. This figure represents less than 1% of household annual incomes at baseline, indicating a minimal financial burden relative to the potential benefits.

Berge et al. provide a nuanced perspective on cost-effectiveness by estimating the variable cost per participant in an externally provided training program at approximately 100,000 TZS (US$67). While utilizing internal trainers could reduce costs, it may also diminish the program's effect, complicating the cost-benefit analysis. The lack of detailed data on internal trainer costs further complicates this evaluation.

Rosas et al. demonstrate that skills interventions can be cost-effective compared to other employability programs in similar-income countries. Their analysis reveals that the program increased overall employment by 3.1 percentage points, with a cost per job created of slightly less than US$17,000. This is notably lower than the costs associated with similar job creation programs, which range from US$8,500 to US$80,000, underscoring the relative efficiency of the skills intervention.

Calderone (2022) further supports the cost-effectiveness narrative with the STRYDE 2.0 program, which shows a monthly income increase of about 61,000 shillings for women, translating to US$26 per month or US$312 annually. Assuming constant earnings, the program breaks even within 16 months and pays for itself within 32 months when targeting both genders.

Implications of study findings

Business skills training programmes have a positive effect on employment, work income, skills and material welfare. However, the business training intervention had a small negative effect on emotional state and business performance. The findings also show that standalone training programmes did not positively affect getting people jobs, helping them learn new skills, or increasing their earnings. However, multi-component interventions showed a significant positive effect.

Implications for policy and practice

1. Policymakers and practitioners should prioritize effective multicomponent interventions (the integration of business skills training with financial support and additional assistance) to enhance the effectiveness of youth employment programmes.

2. More robust and flexible funding mechanisms are needed to ensure the timely disbursement of funds and avoid project delays and partial implementation.

3. Investments in infrastructure, including training spaces, internet, and electricity, are crucial to support the successful implementation of business skills training, especially in conflict-affected areas.

4. Policies should focus on improving staffing conditions, including longer-term contracts and the recruitment of qualified personnel, to provide adequate and quality support to beneficiaries.

5. Gender-specific interventions should be designed and implemented to address the unique challenges and needs of female participants, leveraging the potential for greater effect on empowerment and economic outcomes.

6. Practitioners should consider the broader context of conflict and instability when planning and executing business skills training programmes, ensuring that interventions are resilient and adaptable to changing circumstances.

7. The research calls for a more nuanced understanding of the effect of business skills training on emotional well-being and business outcomes, suggesting areas for further investigation and potential improvement in programme design.

8. Resources should be allocated to the components of programmes that have the greatest effect on desired outcomes. For instance, if cash grants are found to be particularly effective in stimulating business growth, policies might prioritize financial inclusion and access to capital.

9. Finally, the moderate level of confidence in the quantitative findings suggests that more rigorous impact evaluations and high-quality research are needed to better understand the effectiveness of business skills training interventions in Sub-Saharan Africa.

Implications for research

1. Integrated approaches: The research findings underscore the limitation of standalone training programmes in effectively enhancing youth employment outcomes. There is a need for researchers to investigate the cost-effectiveness and effectiveness of multicomponent interventions in different contexts. Factorial designs are particularly useful in this regard.

2. Gender considerations: The data suggest that female participants frequently derive greater benefits from interventions in conflict-affected areas. Researchers are encouraged to scrutinize empowerment indicators, food security, health outcomes, and agricultural productivity, specifically focusing on women.

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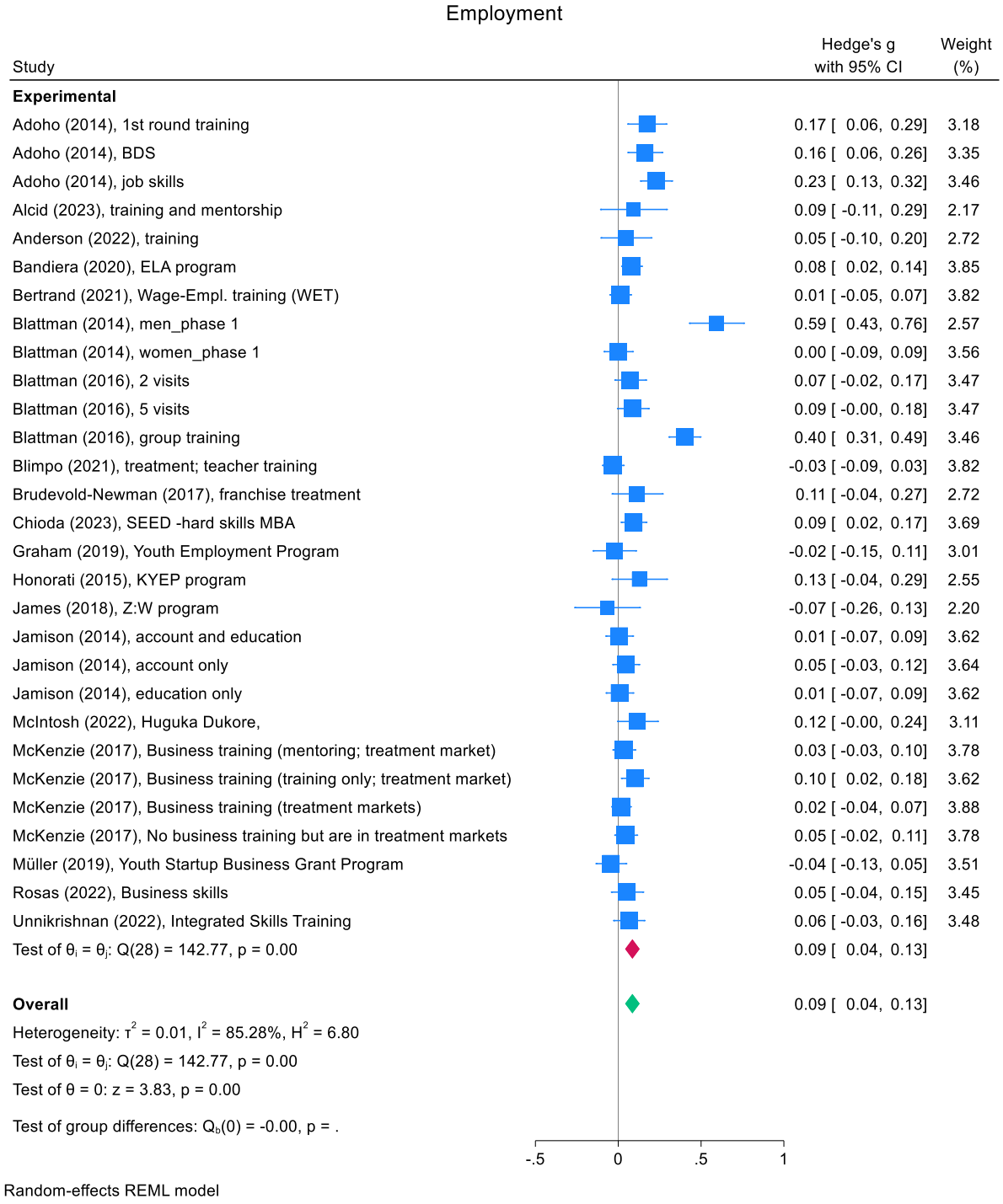
Annex 1 Results of meta-analysis

Business skills training programmes have a positive effect on employment, work income, skills, and material welfare. In addition, a positive effect on business performance and psychological or emotional state outcomes. These findings are based on meta-analysis, which averages the effect across all studies (see Figure A1.1).

The average effect from meta-analysis is commonly reported as a standardised mean difference (d), which is the difference in the mean in outcomes between treatment and control, divided by the standard deviation of the outcome. Rather than d, we report (Hedge's) g, which includes a small adjustment to d to account for bias in small samples. A g of less than 0.1 is considered a small effect, 0.1-0.2 is moderate and above 0.2 is a large effect.

The meta-analysis averaging across all effect sizes finds that business skills training has a statistically significant but very small effect on employment (g=0.09). There is also a positive effect on material welfare (g=0.13), work income (g=0.07), and skills (g=0.12), with a slightly positive effect on the emotional state (g=0.02) and business (g=0.09). These negative effects are with respect to a control group who did not receive business skills training. There may be a period of adjustment where new skills are being integrated, during which business performance might temporarily dip. Additionally, business skills training may involve intensive learning and practice, which can lead to increased stress and pressure on individuals. However, these findings have low confidence because of concerns about the included studies and the small number of included studies for the business and material well-being outcomes.

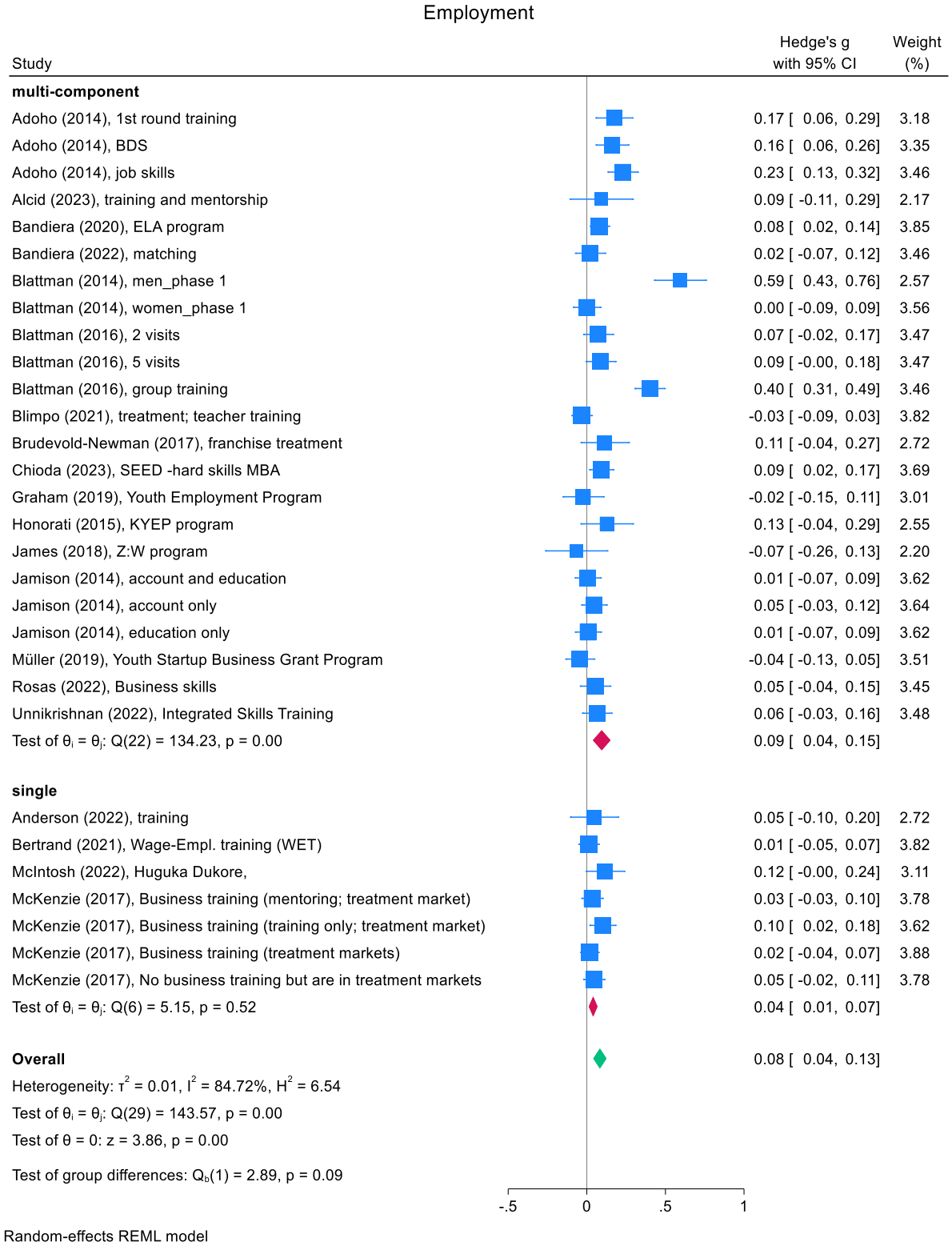
Figure A1.1: Effect of business skill training interventions on employment outcomes



Source: Authors' calculations.

Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2, and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

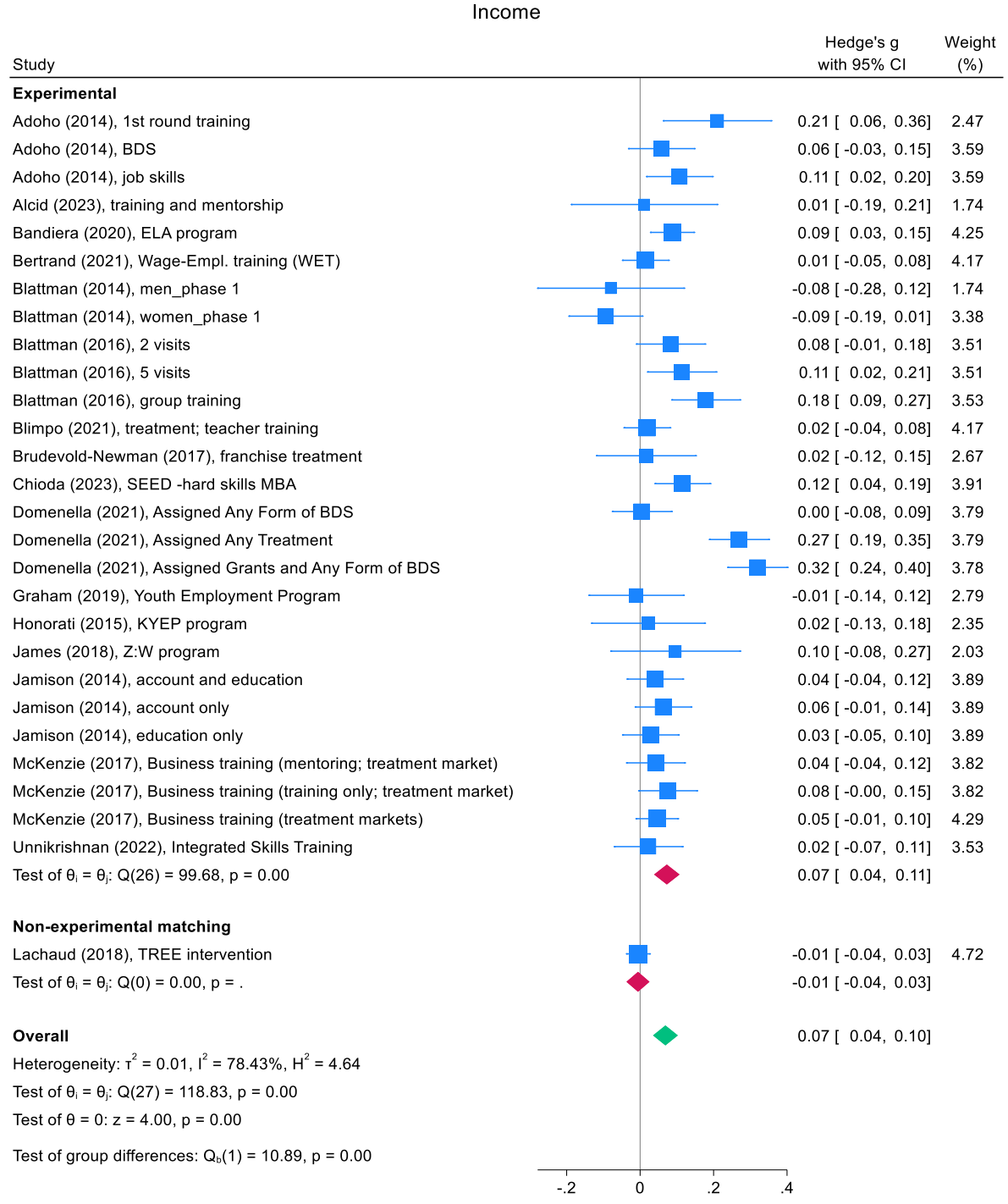
Figure A1.2: Effect of business skill training interventions on employment outcomes by intervention design



Source: Authors' calculations.

Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2, and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

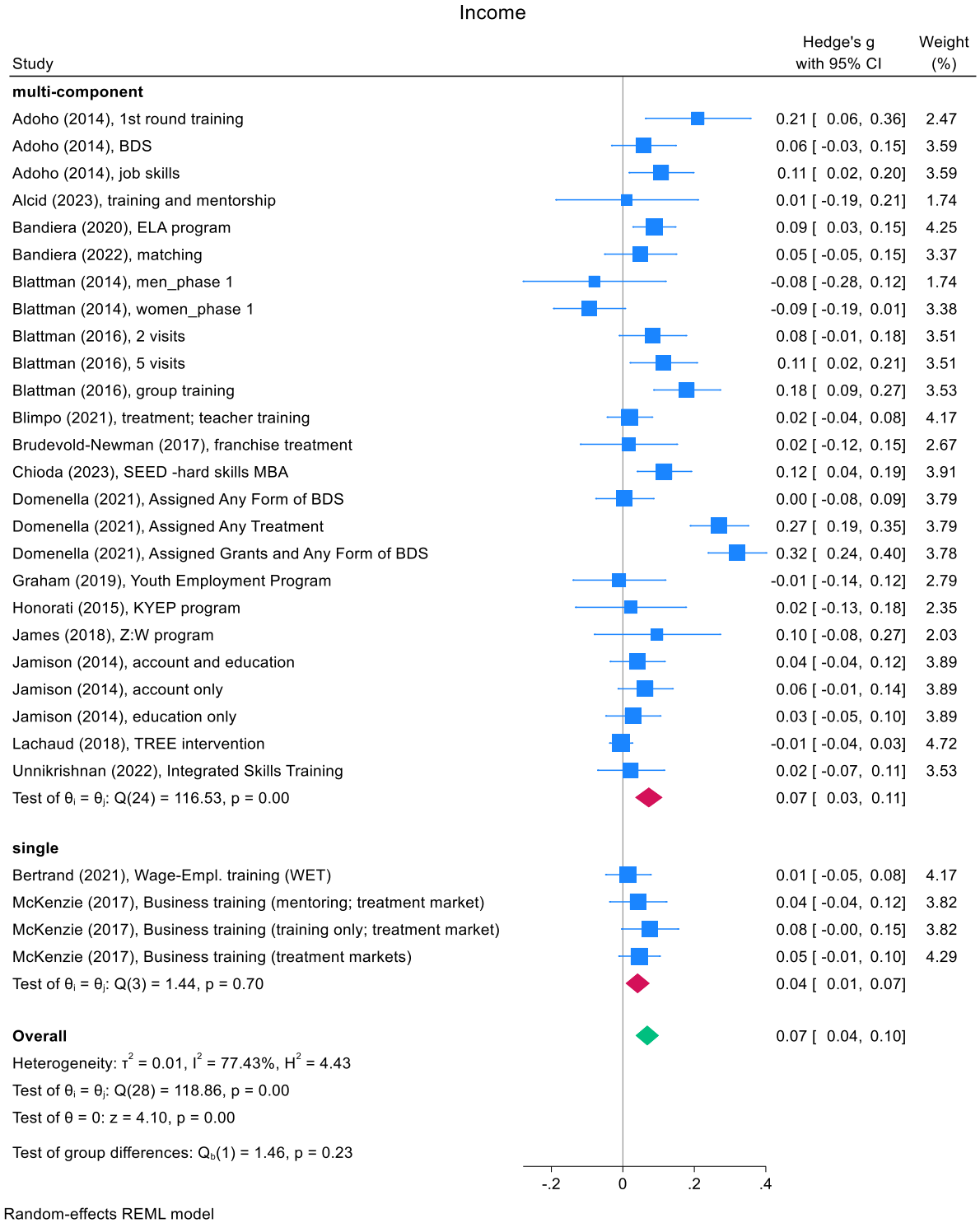
Figure A1.3: Effect of business skill training interventions on income (wages and earnings)



Source: Authors' calculations.

Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2, and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

Figure A1.4: Effect of business skill training interventions on income (wages and earnings) by intervention design



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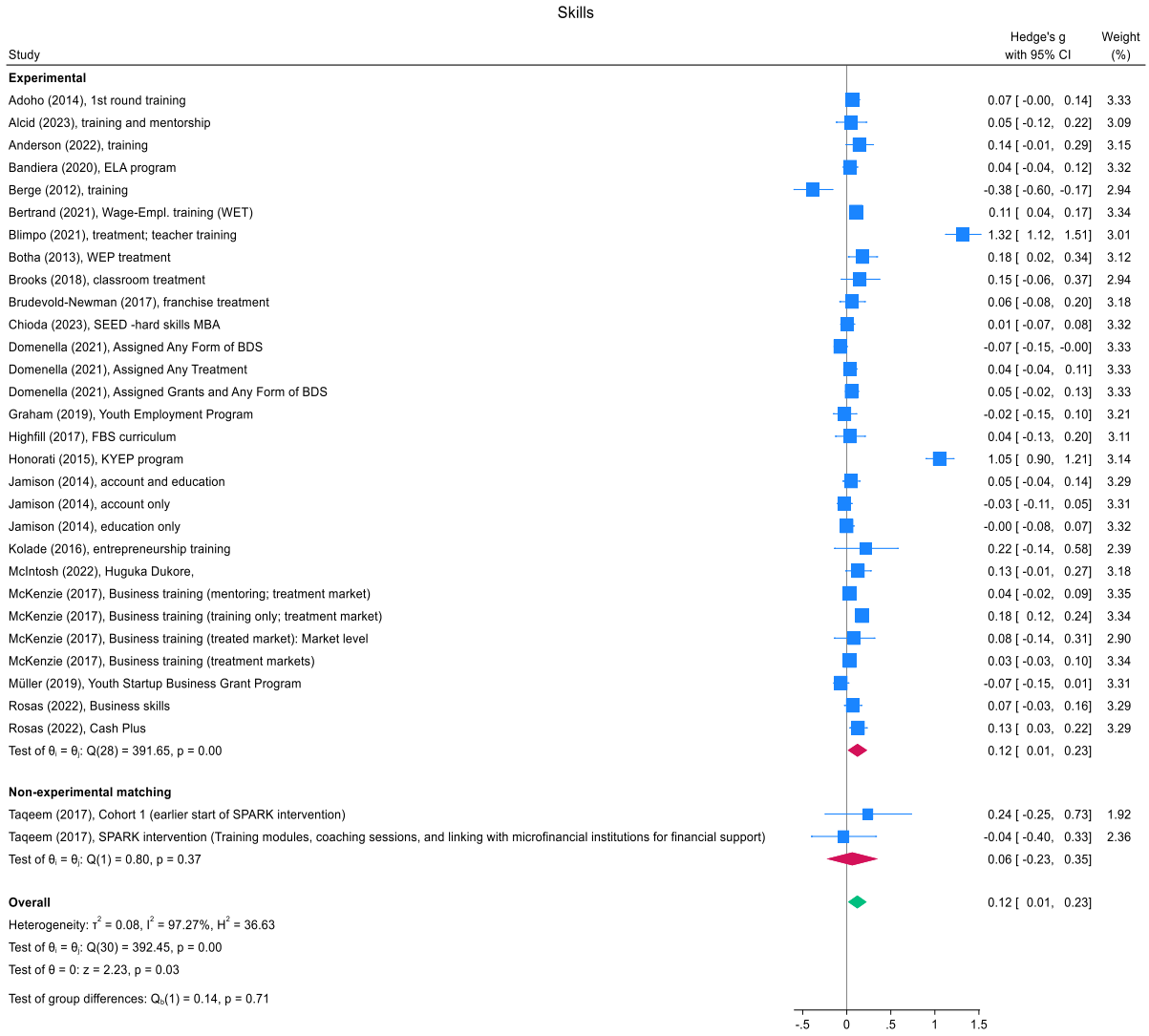
Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2, and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

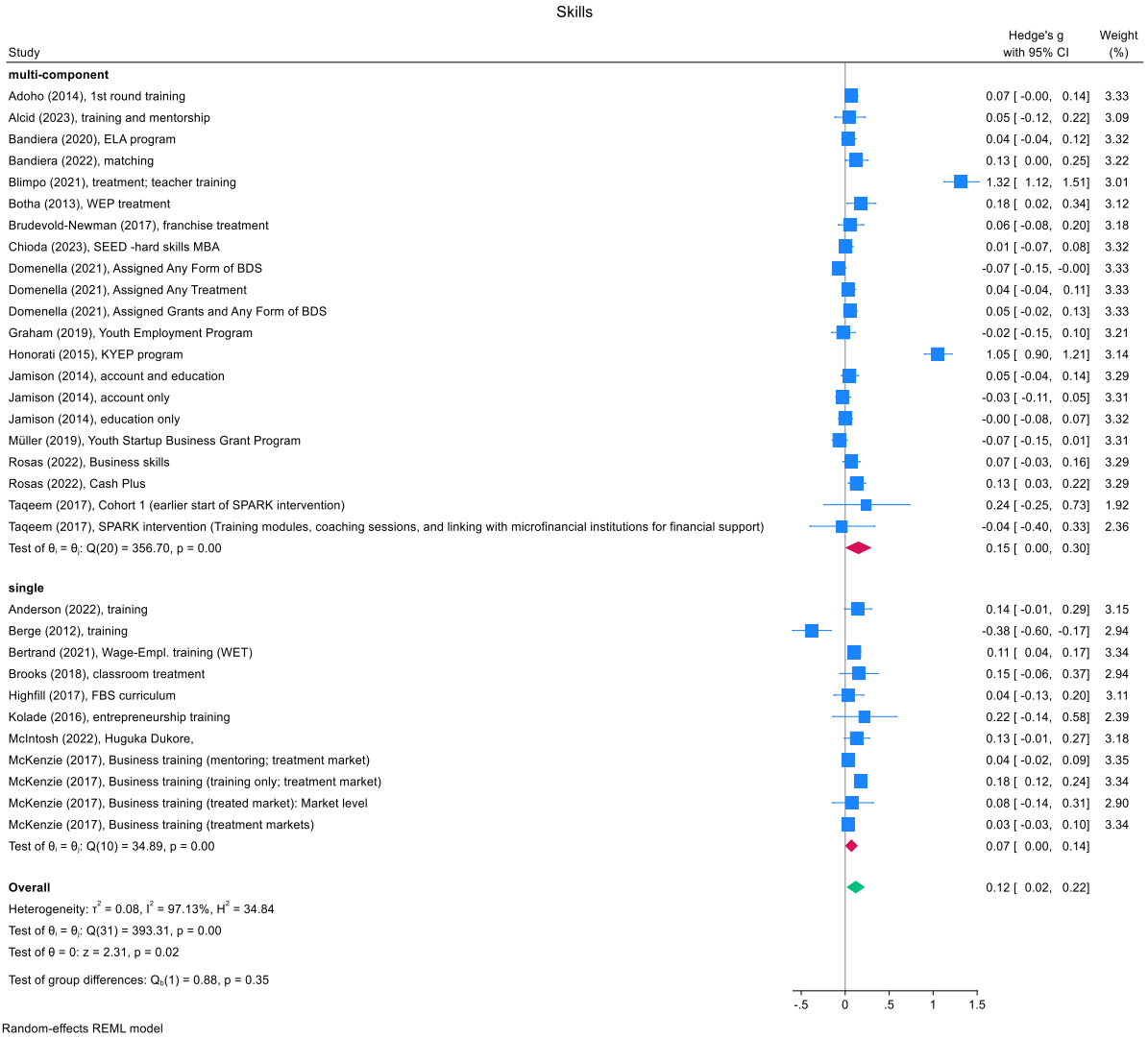
Figure A1.5: Effect of business skill training interventions on skills



Source: Authors' calculations.

Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2 , and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

Figure A1.6: Effect of business skill training interventions on skills by intervention design



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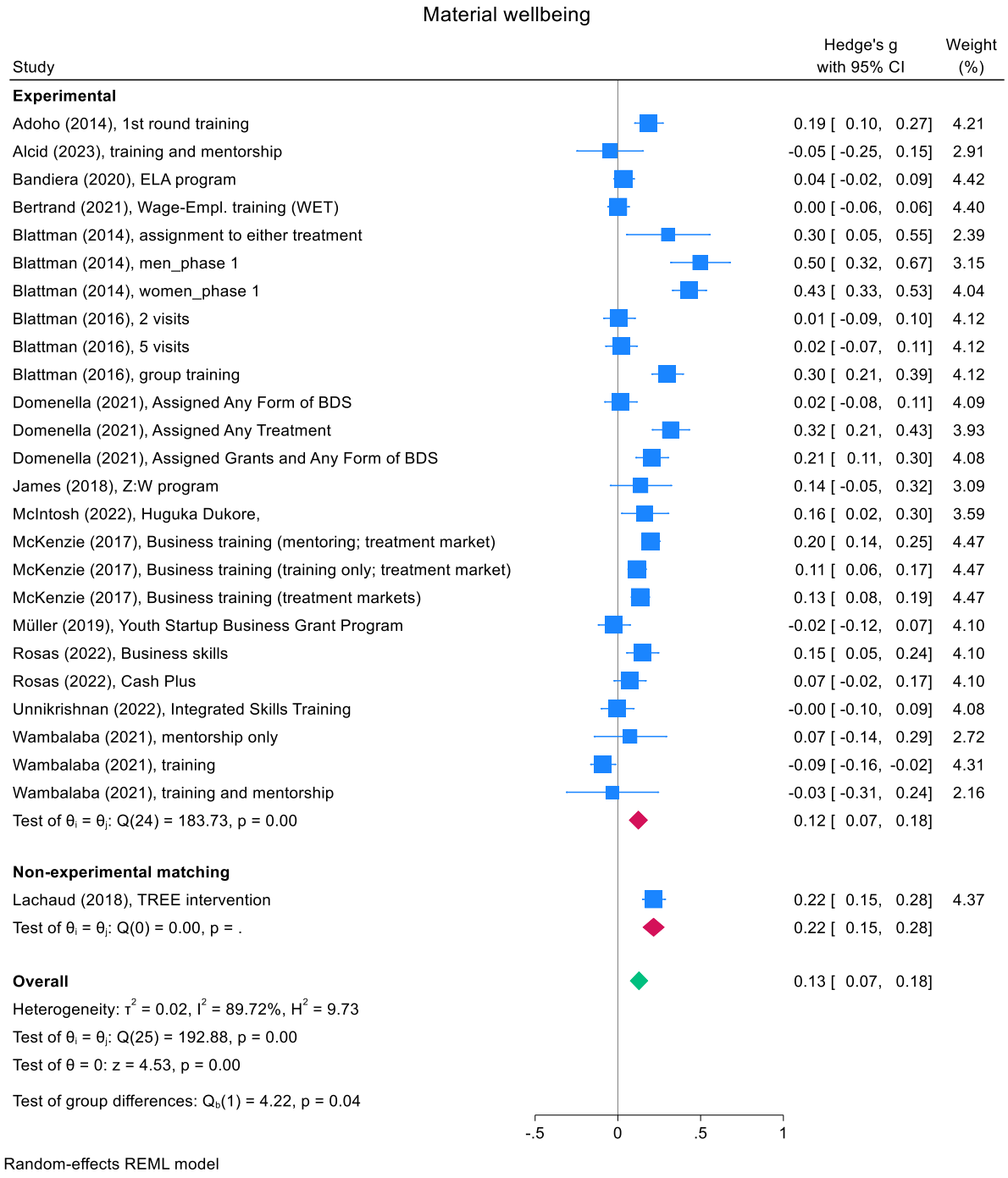
Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2 , and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

Figure A1.7: Effect of business skill training interventions on material welfare outcomes



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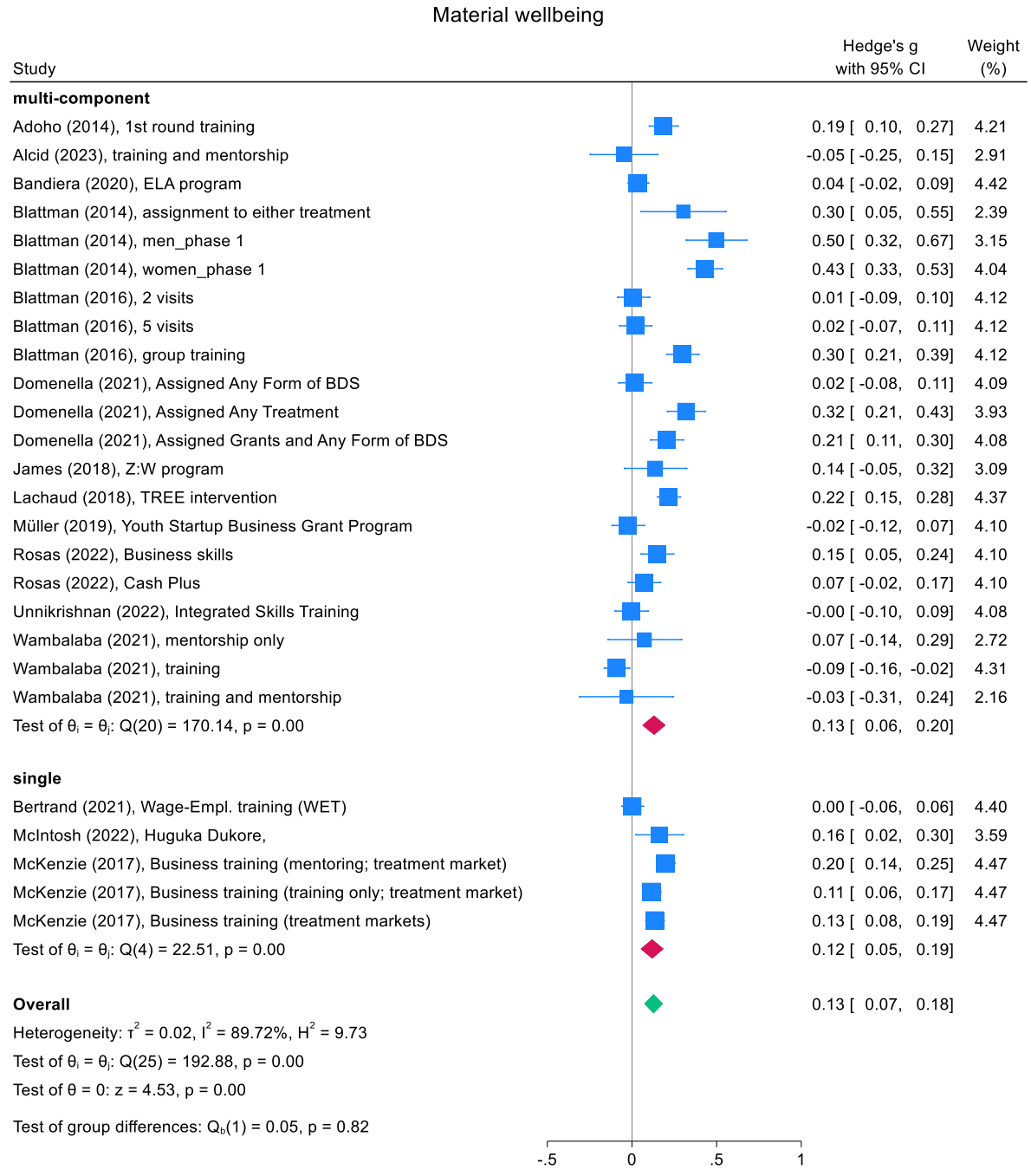
Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2 , and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

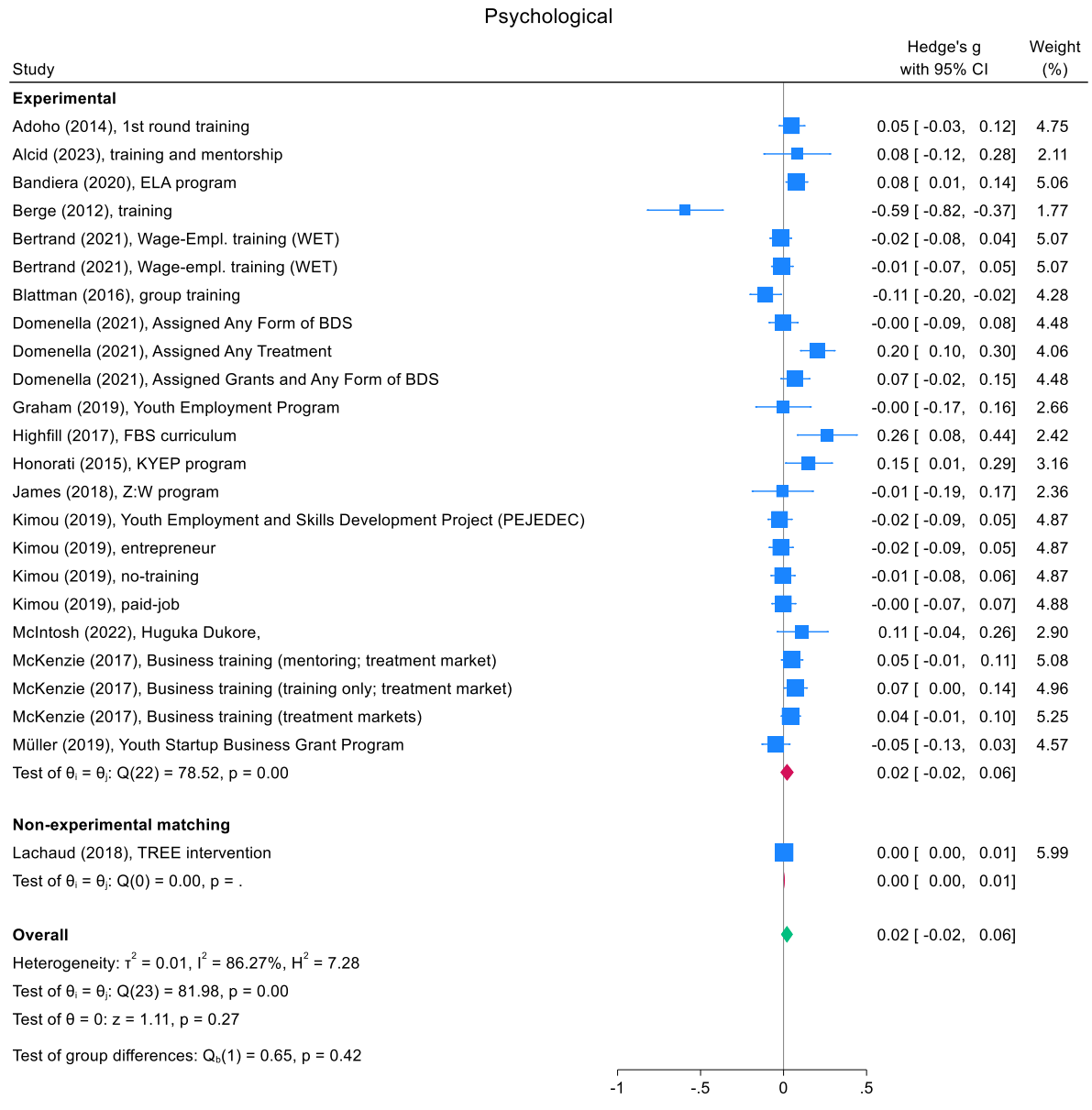
Figure A1.8: Effect of business skill training interventions on material welfare outcomes by intervention design



Source: Authors' calculations.

Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2, and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

Figure A1.9: Effect of business skill training interventions on psychological outcomes



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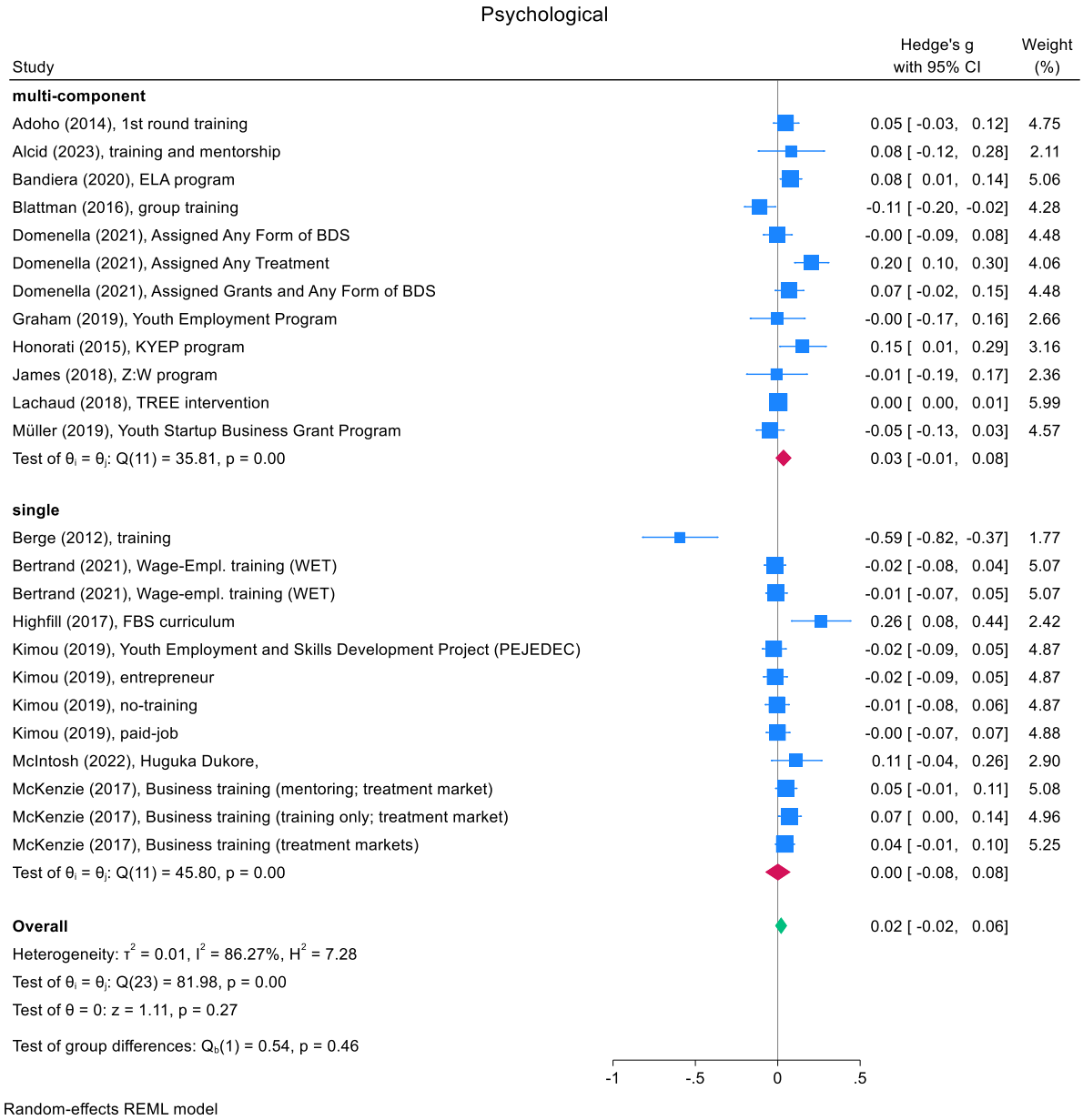
Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2, and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

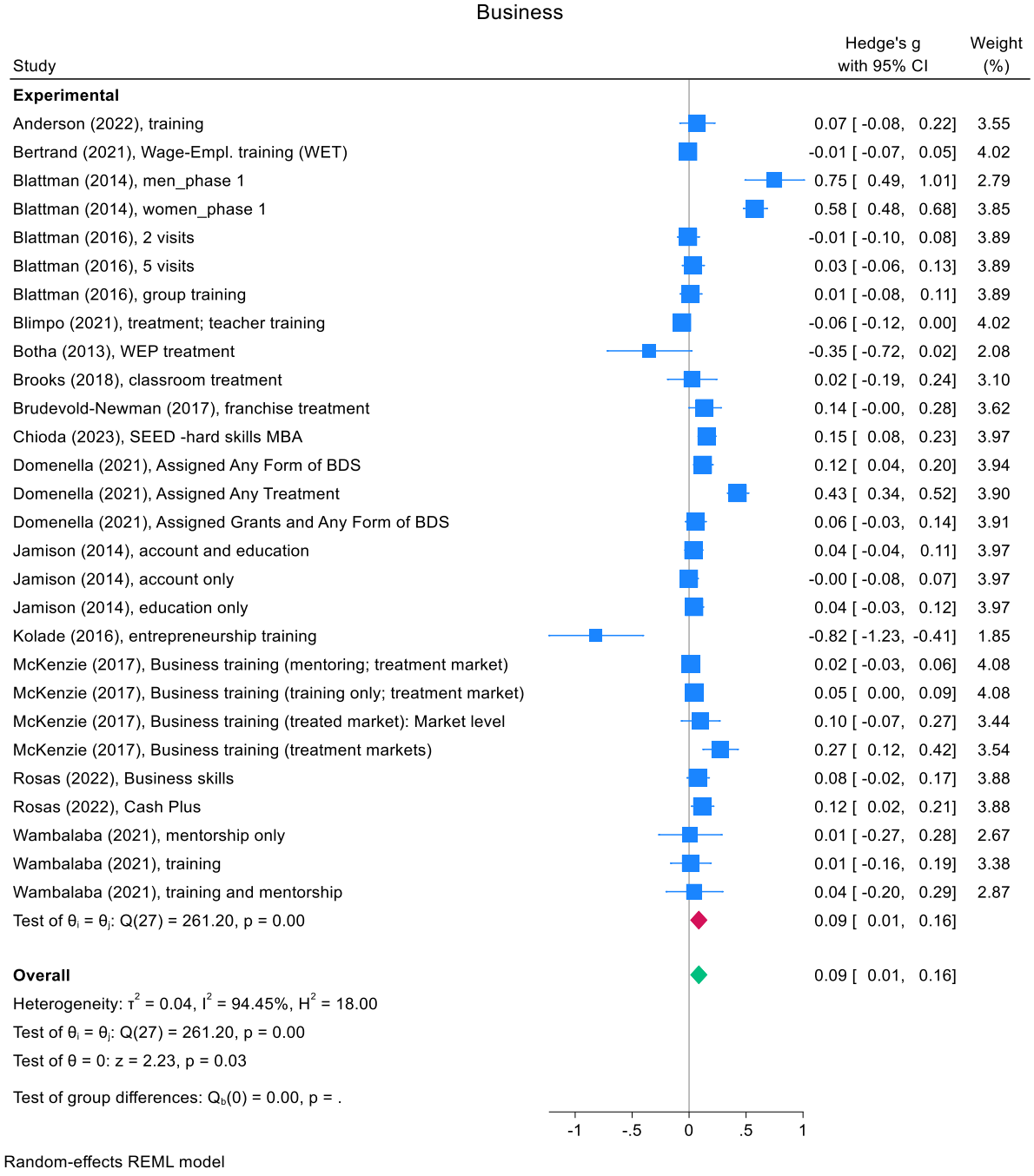
Figure A1.10: Effect of business skill training interventions on psychological outcomes by intervention design



Source: Authors' calculations.

Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2, and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

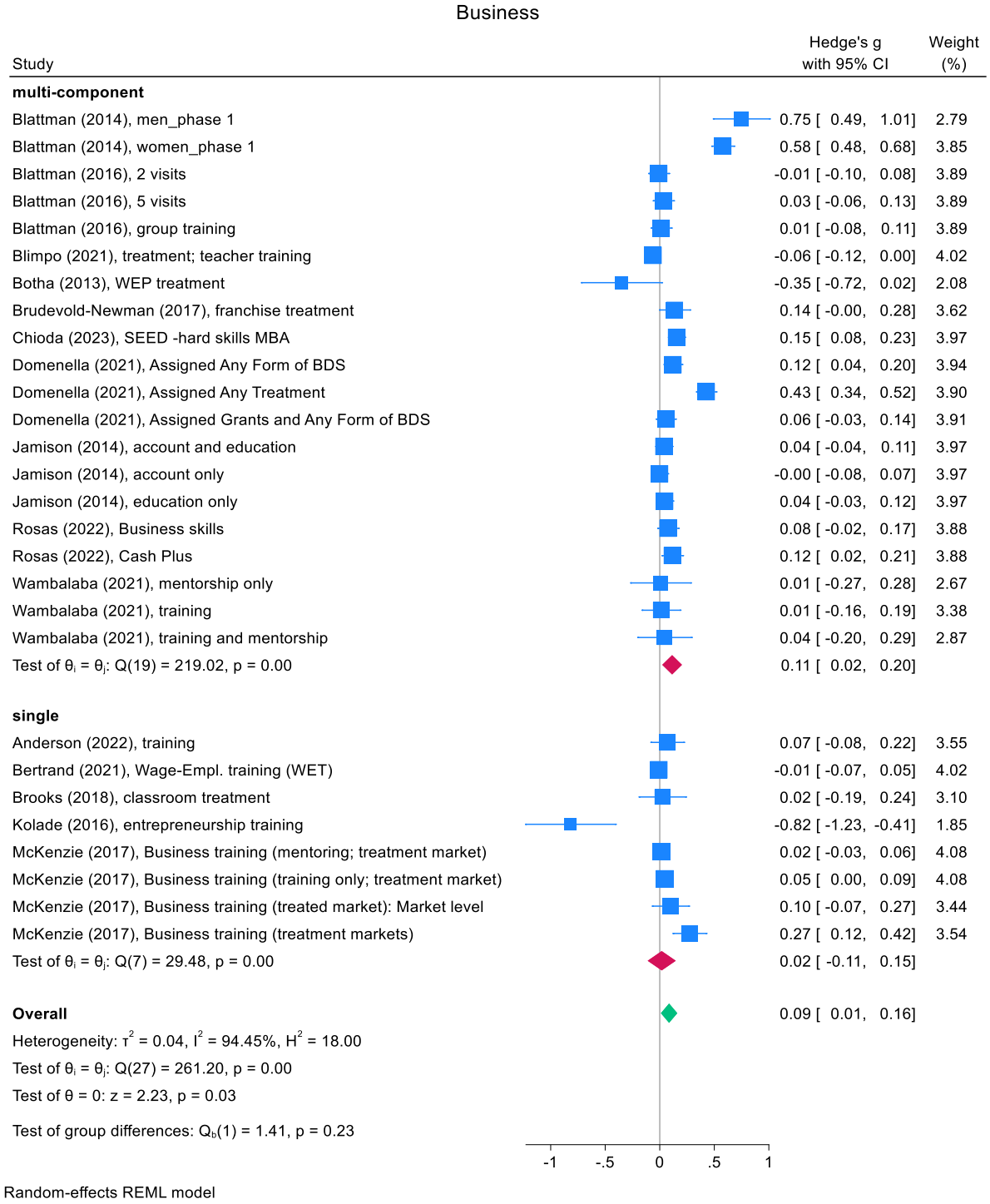
Figure A1.11: Effect of business skill training interventions on business outcomes



Source: Authors' calculations.

Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2, and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

Figure A1.12: Effect of business skill training interventions on business outcomes by intervention design



Source: Authors' calculations.

Notes: CI = confidence interval; p = prob value. I^2, H^2, τ^2, and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

Annex 2 Calculation of meaningful effect sizes

The SMD can be converted to an odds ratio (OR) using the formula $lnOR = \frac{g\,\pi}{\sqrt{3}}$ (Borenstein et al., 2009). Using the OR, a 2x2 table can be created, for which we need an assumption of the share of the control group gaining employment. We assume 50%, which is a commonly observed value in the dataset. We also need to assume the sample size for treatment and control, though the result is not sensitive to that assumption. We assume 100 in each group. With g=0.09 OR=1.18 this gives the 2x2 table:

Table 2.1: 2x2 table to calculate the percentage change in employment

	Employed	Unemployed	Total
Treatment	54	45	100
Control	50	50	100
Absolute % change		4.1%	
% change (cf comparison rate)		8.1%	
Number need to treat		25	

The number needed to treat is calculated as the number treated divided by the absolute difference in employment between treatment and control groups.

Annex 3 Critical appraisal

Critical appraisal assesses the confidence we can have in study findings, being classified as high, medium or low. The results of the critical appraisal inform the overall confidence we have in the findings reported in the technical report.

Table A3.1: Critical appraisal of included studies

Studies	Study Design	Confidence
Abduljabar (2015)	Process	High
Adablah (2018)	Process	Medium
Adoho (2014)	Impact	Low
Altai-Consulting (2019)	Process	High
Anderson (2022)	Impact	Medium
Bandiera (2020)	Impact	Low
Berge (2012)	Impact	Medium
Blattman (2013)	Impact	Low
Blattman (2014)	Impact	High
Blattman (2016)	Impact	High
Blattman (2019)	Impact	High
Botha (2013)	Impact	High
Brooks (2018)	Impact	Medium
Brudevold-Newman (2017)	Impact	High
Calderone (2022)	Impact	High
Cherukupalli (2019)	Process	Medium
Dexis Consulting Group (2019)	Process	High
Diouf (2017)	Process	Low
Domenella (2021)	Impact	High
Duggleby (2015)	Process	Low
Education Development Center, Inc. (2022)	Process	Medium
Eischen (2016)	Process	Low
Fiala (2014)	Impact	High
Highfill (2017)	Impact	Low
Honorati (2015)	Impact	Low
ILO (2022)	Process	High
Karuga (2012b)	Process	Medium
Kumbi and Mwaka (2023)	Process	Medium
Kwauk (2016)	Impact	Low
Lachaud (2018)	Impact	Medium
Lyby (2010)	Process	Medium
Monschein (2019)	Process	High

Montrose (2016)	Process	Medium
Morojele (2009)	Process	High
Munavu (2019)	Process	High
Núnez (2010)	Process	Medium
Rosas (2017)	Impact	High
Taqeem Initiative (2017)	Impact	Low
Terminal Evaluation Consultants (2006)	Process	High
UNDP (2022a)	Process	High
UNDP (2022b)	Process	High
Wambalaba (2021)	Impact	Low

Table A3.2: Threshold values for critical appraisal

		No. of included studies for effect estimate		
		5 or less	6-9	10 or more
Study CA assessment	Mainly low	Low	Low	Low
	Medium	Low	Medium	Medum
	Mainly high	Low	Medium	High

Mainly low = At least 60% of studies are rated low

Mainly high = At least 60% of studies are rated high

Medium = any estimate not covered by the above two categories

Adjustment for heterogeneity: reduce by one level if $I^2 > 80\%$

Application to this report

There are 21 impact evaluations, of which eight are rated “low” and nine “medium”. Hence the overall rating is “medium”.

There are also 21 process evaluations of which three are rated “low” and ten are rated “high”, Hence the overall rating is also “medium”.

Confidence in quantitative findings: Medium

Confidence in qualitative findings: Medium