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Graduation

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10.1 Introduction

Graduation is an approach to social protection that focuses on enhancing participants' productive capabilities. The programs associated with this approach provide a comprehensive support package through a bundle of multiple interventions (which is why they have been called "multifaceted"). They are time-bound and provide large transfers (which is why they have been called "big push"). They target the most vulnerable and marginalized households, especially women (which is why they have been called "targeting the ultra-poor"). A graduation program comprises interventions targeting four main outcomes: basic needs fulfillment, livelihood enhancement, financial inclusion, and social empowerment. These outcomes are achieved through context-specific interventions. Basic needs are addressed primarily through cash transfers and possibly health care or other social protections, ensuring resilience against adverse shocks. Livelihood enhancement involves significant asset transfers and skills training. Financial inclusion encompasses financial management training and access to financial services. Social empowerment is fostered through coaching, life skills education, group formation, and community engagement. Collectively, these interventions aim to place participants on a lasting path out of poverty.

The graduation approach embodies the belief that households in extreme poverty are trapped by multiple, interrelated barriers but can enter productive and remunerative work once these barriers are overcome. The asset and skills transfer of such programs are seen as an investment. In this, graduation differs from more traditional approaches to social protection that prioritize regular transfers to ensure minimum consumption levels.

The approach originated in the non-government sector and especially with the pioneering efforts of the Bangladeshi NGO BRAC since the early 2000s. Recently, governments have also adopted graduation programs, with twenty-four countries running or piloting them in 2023, impacting 1.3–2 million people globally.[1] This interest does not imply that graduation will supplant other social protection methods. However, the evidence we review suggests it has the potential to become a significant component of national social protection strategies. This is for two main reasons. First, governments can integrate existing programs like cash

transfers, labor market, and livelihoods programs into a more efficient and sustainable bundled graduation program. Second, economic growth and other social protection programs often leave behind a marginalized segment of the population that graduation is capable of reaching.

The evidence suggests that graduation programs significantly enhance the living standards of those in extreme poverty across various contexts. Successfully executed by NGOs and governments at different scales, their effects are long-lasting and cost-effective. Moreover, these programs seem particularly promising for vulnerable groups impacted by conflict or climate change.

10.2 BRAC's Ultra-Poor Graduation Model

There are many different programs that follow the graduation approach. We start by describing the typical components of the graduation program. These components are typically sequenced over a period of two years (figure 10.1). Comprehensiveness of the support package, careful sequencing, and adaptation to local circumstances are all considered crucial.

10.2.1 Targeting and Market Analysis

The graduation approach starts by identifying and selecting the most destitute and vulnerable individuals or households through participatory methods, community consultations, and data-driven assessments, such as village meetings. Programs typically focus on female-headed households with working-age members. Next, program officers perform a market analysis to pinpoint viable livelihood options. This typically includes transitioning

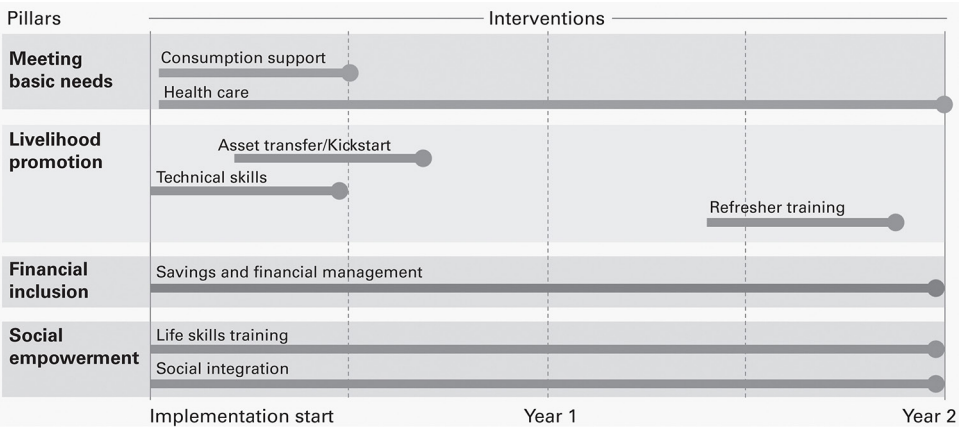

Figure 10.1
Typical components of the graduation approach.

from casual labor or subsistence farming to micro-entrepreneurship, predominantly livestock rearing, but also covering non-farm businesses. Participants choose their livelihoods from a provided menu, in consultation with program staff.

10.2.2 Livelihood Training and Skills Development

Once a suitable income source is identified, livelihood training sessions are provided to equip participants with relevant skills, such as agricultural techniques, marketing, basic account keeping, or entrepreneurship development. By enhancing their income-generating capabilities, participants gain the confidence to run their own businesses. This training both precedes and continues alongside their new business activities.

10.2.3 Asset Transfer

The main component to encourage income-generating activities is the provision of productive assets. This could be in the form of livestock, seeds, tools, or capital for non-farm businesses. The type of productive asset is customized to suit the livelihood goal chosen by the participant. Another purpose of the asset transfer is to instill a sense of ownership and responsibility—to encourage recipients to extend their time horizons and invest in their futures. Other types of support are designed to improve the productivity of the transferred assets and to provide complementary inputs. For example, participants may get support to construct a livestock shed, obtain livestock feed, or get linked to output markets.

10.2.4 Consumption Support

To meet immediate consumption needs and reduce the risk of backsliding into poverty, regular cash or food transfers are often provided. These transfers act as a safety net, ensuring that participants can meet their basic needs while building sustainable livelihoods. This is particularly relevant where supported enterprises take several months to generate income and households need to be protected against the need to sell assets in the event of shocks.

10.2.5 Coaching and Social Empowerment

The graduation approach to poverty alleviation emphasizes social empowerment through regular coaching and mentorship over twelve to twenty-four months. Coaching varies in frequency and modality, including household visits, group meetings, and digital technology. It aims to ensure proper enterprise management and broader social empowerment. Key goals include supervising enterprises, providing emotional support, encouraging goal-setting, and facilitating the development of social networks. These efforts enhance participants' resilience, foster community belonging, and promote future planning, while also addressing broader social issues like gender norms and health practices.

10.2.6 Access to Financial Services

The program aims to improve financial inclusion by providing access to financial services such as savings accounts, microloans, and micro-insurance. These services can foster financial resilience and enable participants to manage risks effectively. Savings and credit groups are formed during the intervention phase, which enables both saving and investment in the transferred business as well as in new business opportunities. Participants often stay engaged with these financial services after the program is over.

10.2.7 Access to Other Social Services

The program prioritizes access to essential services including health care, housing, and education for participants and their families, either directly or via existing government programs. Many targeted households qualify for additional social protection but lack awareness or encounter administrative hurdles. The program facilitates connections and support to overcome these barriers with a particular emphasis on health care given the central role of morbidity in keeping participants in poverty.

In addition to core components, graduation-approach projects may incorporate tailored interventions such as social support and market linkages. Details on program variants and their empirical evidence are discussed in sections 10.4 and 10.5.5.

10.3 The Philosophy of Graduation: Why and When Does It Work

Underpinning the graduation approach is the belief that even the poorest individuals in society can take on productive occupations. If they haven't yet done so, it is because they are held back by a number of barriers outside of their control. Indeed, the fact of living in poverty itself can create insurmountable barriers to income-generating activities. This ethos has been central to the approach since its inception. Whether graduation is effective depends on whether this view of the world is true, or, more accurately, whether it holds in the targeted contexts and populations.

Conceptually, we can isolate two defining features of the graduation approach. First, it addresses multiple dimensions of poverty at the same time. Second, it offers large, time-bound interventions along these dimensions. Each of these is motivated by a set of beliefs about life under extreme poverty. We discuss them in turn.

10.3.1 Multidimensional Poverty and Multifaceted Programs

The multifaceted nature of graduation programs responds to the observation that hardships tend to correlate. Income-poor households are disproportionately likely to suffer from health problems, social exclusion, and lack access to public services, formal finance, and education. They are also more likely to be exposed to environmental shocks and crime and to live in remote areas without infrastructure or employment opportunities. Each of these dimensions of poverty both imposes a welfare cost and also constitutes a barrier to earning more income.

Furthermore, those different barriers can interact. For example, frequent health-related expenditures may require a household to divest productive assets, which then condemns its members to continue working in occupations that damage their health. Similarly, persistent poverty can create cognitive and emotional burdens which might impede investment decisions (see, e.g., Mani et al. 2013; Haushofer and Fehr 2014).

These interactions justify addressing multiple dimensions of poverty *at the same time*, as they create complementarities in the return to different program components. At the extreme, multiple constraints are binding, in the sense that there is no improvement unless all of them are addressed at the same time. In the first example earlier, providing basic health care in addition to a productive asset transfer increases the return to the asset and may allow the household to shift into productive self-employment. These examples motivate the basic needs pillar of graduation: Relieving the constant pressure of living in extreme poverty and cushioning against shocks may free mental resources to focus on longer-term investments. In this way consumption support can increase the return to other program components. Similar considerations apply to other program components. While each intervention may have a welfare effect in isolation, it is their combination that permanently increases household income-generating capacity.

A more technical way to think about this is to conceptualize the different dimensions of poverty as (lack of) different forms of capital—a term chosen to capture the fact that these are stocks that can be accumulated or depreciated over time. In this framework, the asset transfer provides physical capital, the training human capital, the social inclusion social capital, and so on.

There has been considerable interest in understanding whether all components are necessary or whether some can be dropped to reduce costs. The capital framework makes clear that the answer hinges on two conditions. First is the substitutability of different forms of capital in the income-generating process, that is, the extent to which one dimension of poverty limits the returns from improving another dimension. If there is imperfect substitution between different forms of capital, a second consideration becomes important—the cost of transforming one form of capital into another. This typically relates to the existence and functioning of markets. For example, physical capital can be exchanged for human capital if there is a market for training. Cash on its own is most useful when what a household lacks (training, health care, or livestock insurance) is available for purchase at a low price. Lack of these markets means that progress against one dimension of poverty cannot easily be converted into another dimension. In this case, providing a bundle of multiple dimensions would be more effective.

10.3.2 Poverty Traps and Large, One-Off Transfers

The second defining feature of graduation is that it provides large, one-off interventions—in particular, a large productive asset transfer and extensive, asset-specific training. This "big push" nature of the graduation approach reflects the belief that program participants

are in a poverty trap. They lack the initial capital needed to generate sufficient income, which in turn makes it impossible for them to save start-up capital. Again, the specific form of "capital" may differ, giving rise to different forms of poverty traps operating through health, physical assets, skills, or others.

Poverty trap models assume an underlying production technology such that small investments generate returns that are too small to recover the cost of investment plus basic consumption needs. Any small gains in productive capital are thus eroded over time, making it impossible for households to save their way out of poverty gradually. In contrast, large investments have large returns, allowing for sustained capital accumulation at higher levels of wealth. But, absent a functioning credit market, such large investments are out of the reach of low-income households. Poverty trap models thus predict a low- and a high-wealth equilibrium. The same household can end up in either, depending only on its initial endowment.

A poverty trap can be exacerbated by households' vulnerability to negative events such as health or weather shocks. Such shocks force the poorest households to sell productive assets and thus lose future income, while slightly wealthier households can cover emergency expenditures out of pocket.

This framework makes clear how the idea of a poverty trap motivates the large transfers at the core of the graduation approach. Small transfers do not push recipients out of the low equilibrium because they generate small returns and their effects dissipate over time. Consumption support of the typical size for cash and in-kind transfer programs increases recipients' welfare but not their productive capacity. Large capital transfers, on the other hand, have large enough returns to pay for themselves and become self-sustaining. Once the household reaches a certain level of wealth, it can make profitable investments and accumulate further wealth.

Poverty traps are likely to arise whenever occupational choice is limited, entering more profitable work requires a lumpy, up-front investment, credit markets are absent, and low-income households are exposed to frequent negative shocks. This can explain why graduation programs are particularly effective in such settings. It might also be one of the reasons implementing graduation in cities has proven more challenging than in remote rural settings. Finally, note that in any population there will be heterogeneity, with some households trapped and others not, as well as in the type of poverty trap that households face. This heterogeneity can be empirically large, making accurate targeting of participants crucial (Balboni et al. 2022).

10.3.3 Insights for the Design and Adaptation of Graduation Programs

Populations trapped by multiple poverty dimensions and lacking access to profitable investments need multifaceted programs with substantial transfers. Key considerations for including or excluding components are their impact on other components' returns and their availability outside the program. Programs must address all critical constraints to be effective, especially in areas with limited market functionality. Transfer size decisions should

consider the existence of a poverty trap and the wealth needed to escape it. The transfer should bring recipients to a sufficient level of wealth to enter a productive occupation, generate surplus income after basic consumption, invest in future production, and cushion the household against negative shocks. Transfer sizes should vary based on individual needs, particularly for vulnerable or remote households. The slightly better-off in the local economy may provide a benchmark for minimum transfer sizes.

10.4 Implementations and Variants

10.4.1 The State of Graduation Around the World

Mapping the global take-up of graduation is a challenging task, because it requires drawing a clear line that designates some programs as "graduation" and excludes others. In reality, a wide spectrum of livelihood programs ranges from "cash-plus" programs that combine cash transfers with complementary support, such as training, coaching, or market linkages (see, e.g., Lind et al. 2023) to "graduation-plus" programs that extend the typical graduation program.

For example, the Partnership for Economic Inclusion (PEI) recorded 219 livelihood programs around the world as part of a comprehensive search in 2019 (Andrews et al. 2021). Figure 10.2 shows that the cumulative number of these livelihood programs has increased

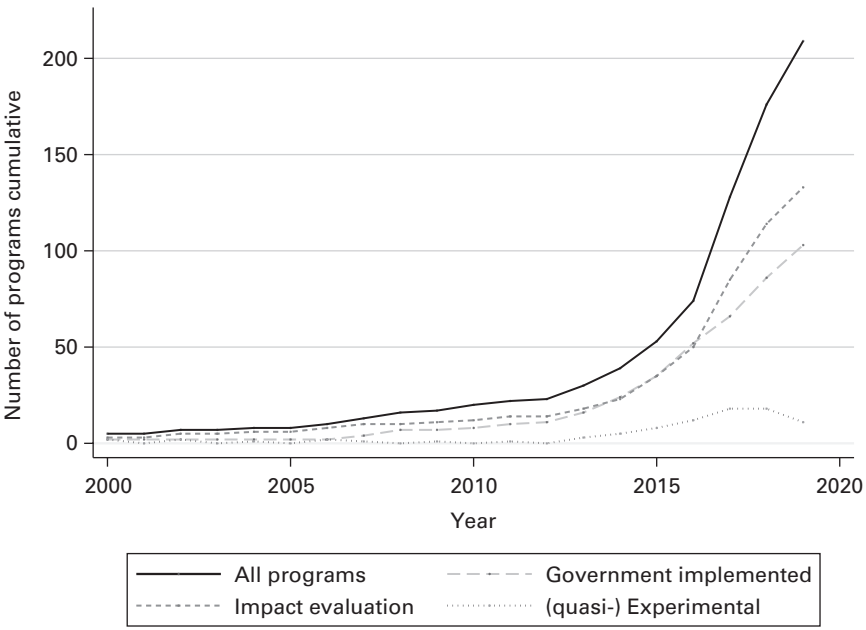

Figure 10.2
Cumulative number of livelihood programs, 2000–2019.

sharply from 2012 to 2020, with around half the programs implemented by governments. All of these programs pursue the goal of promoting income-generating activities, and they combine different types of support to do so. But most livelihood programs don't have the comprehensive set of components and large transfer values that proponents of the graduation approach consider essential, and practitioners disagree about which of those count as graduation.

In a recent search, the Ultra-Poor Graduation Initiative (UPGI) at BRAC International used a narrow definition of graduation and focused on government-led graduation programs.[2] The authors found that in 2023, there were twenty-four such programs globally, including ongoing programs and pilots that were concluded between 2022–2023 (BRAC International 2023). In total, these programs covered an estimated 1.3 million people, with an additional 700,000 participants targeted by ongoing programs. Most of these are pilots or components in larger social safety net programs. The majority have reached less than 50,000 participants, and only the four largest programs have reached more than 100,000 participants.[3] Many of the current government-led graduation programs (sixteen out of twenty-four) are located in Africa, where the World Bank is the major funder of such programs. For example, under the World Bank's Sahel Adaptive Social Protection Programme (SASPP), graduation pilot packages were included within larger social safety net and cash transfer programs in six countries (Burkina Faso, Mali, Mauritania, Niger, Senegal, and Chad). A further five programs are in Latin America and three in Asia.

Overall, both the PEI and UPGI data indicate that governments are increasingly adopting the graduation approach into their social protection strategies. Graduation programs frequently integrate with other social protection like cash transfers, using safety net registers for targeting.[4] In some cases, government agencies collaborate to implement a graduation program through the convergence of existing services, such as cash, health care, housing support, or labor market programs.

10.4.2 Variants and Extensions

The proliferation of the graduation approach has been accompanied by the creation of many program variants. One approach is to drop some components of the full program discussed in section 10.2 to reduce costs. We discuss the evidence on such reduced programs next in section 10.5. Other, so-called graduation-plus programs provide additional services to increase effectiveness or reach particularly vulnerable populations.

Such graduation-plus programs have, for example, been developed to include people with disabilities (PWD). This represents a significant divergence from the initial model, which was targeted at working-age and capable household members and thus implicitly excluded PWD. Recognizing this shortcoming, disability-inclusive graduation programs, with additional components such as providing assistive devices and support to caregivers, are being piloted in Bangladesh, Uganda, Guatemala, Nicaragua, and Mexico (Ankhi et al. 2023;

Sanson et al. 2018). Another extension is to tailor graduation to the situation of refugees and host populations, which has been piloted in Uganda and Bangladesh.[5] Other novel designs include linkages of participants to output markets or wage-employment opportunities, and attempts have been made to adapt graduation to tackle poverty in cities and to offer resilience in the face of climate change (section 10.6).

Finally, some programs have attempted to recover part of the cost from participants to increase the scale of the program. This should be possible if participants are indeed permanently better off, but repayment must be flexible in order not to undermine households' efforts to accumulate assets. A close relationship between delivery agents and participants can ensure such a repayment schedule (Rahman et al. 2021). An alternative approach to cost reduction is discussed by Janzen et al. (2023) who study a "Pay It Forward" program. In this variant, participants are required to pay forward the cash and asset they received to another community member once they can afford to do so. We believe that future research to assess these new program designs can be particularly fruitful.

10.5 Evidence

The graduation approach has been studied in a variety of contexts and variants. We start by reviewing impact and cost-effectiveness estimates of the full model described in section 10.2. We then consider evidence on program variants and on program scale-up by governments.

We review a range of outcomes commonly reported in the literature. But for future research, we caution against relying on short-term impacts on consumption as these are difficult to interpret: Households may increase consumption by depleting assets or decrease consumption to make further investments. Instead, time-use and productive assets are better suited to capture the change in livelihoods that is intended by the program.

10.5.1 Implementation by BRAC in Bangladesh

BRAC's implementation of the graduation approach in Bangladesh was evaluated by Bandiera et al. (2017). Starting in 2007, the authors collected data on 21,000 households, both eligible and non-eligible. Program participation was randomly assigned at the BRAC branch level. The study documents large welfare increases as a result of the program. After four years (two years after the end of all program-related activities), earnings increased by 21 percent, per capita consumption by 11 percent, and the value of household durables by 57 percent, relative to the control group. These gains appear to be driven by a transformation of productive activities: Participants devote 217 percent more hours in livestock rearing, while reducing casual wage labor in agriculture and domestic services by 17 percent and 26 percent, respectively.[6] The shift into self-employed livestock rearing is made possible by accumulating productive assets, which increase in value by 159 percent, relative to control. There are further signs of a permanent improvement of living standards: Treatment

households are more likely to rent and own land (139 percent and 45 percent, respectively), hold cash savings (24 percent higher value), and even provide loans to other households in the village (5 percentage point increase over 1.6 percent in control). The last three are signs not only of economic welfare but also social status.

10.5.2 Other Contexts

A large set of studies, taken together, now provides evidence that the graduation approach can be successfully adopted by other organizations to other contexts. These findings are summarized in table 10.1. The table collects treatment effects and benefit-cost estimates from impact evaluations of programs that contain all main components of the model as outlined in section 10.2. Some studies also include additional treatment arms testing program variants. In this case, table 10.1 reports effects of the intervention that is closest to the full model.

Notably, Banerjee et al. (2015a) evaluated pilots of the approach in six countries (India, Pakistan, Ethiopia, Ghana, Honduras, and Peru). Pooled results from all countries after three years are strikingly consistent with the findings of Bandiera et al. (2017) from Bangladesh, showing persistent increases in earnings, assets, expenditure, financial inclusion, and food security. Separate analysis of each study site reveals some heterogeneity, with particularly large effects in Ethiopia and India and inconclusive results in Honduras. Broadly consistent results have also been found two years after programs started in Burkina Faso (Karimli et al. 2020), the Philippines (Beam et al. 2022), and Kenya (Zheng et al. 2023).

Of additional interest are the implementations of the graduation approach in Afghanistan (Bedoya et al. 2019), Yemen (Brune et al. 2022), and South Sudan (Chowdhury et al. 2017), which took place during civil conflict. These studies explore whether the graduation approach can offer protection to the most vulnerable in a fragile context. This might not be the case—as markets collapse with the local economy and assets are destroyed, the program might be rendered ineffective. Contrary to these concerns, Bedoya et al. (2019) find large treatment effects when surveying households one year after the end of program activities. Per capita consumption and income increase by 30 percent and 22 percent, respectively, relative to the control group. The impact on the value of livestock owned was more than 300 percent of the control group average, and participants increased labor participation by 64 percent. These effects persisted in a follow-up survey three years later (five years after the asset transfer) despite severe droughts and eruption of violence in the meanwhile (Bedoya et al. 2023a).

Yemen's graduation program, launched in 2009, was disrupted by prolonged political crisis. Brune et al. (2022) managed to conduct a follow-up survey in 2014, where they observe significant effects on assets and savings but not consumption. Similarly, Chowdhury et al. (2017) study the first two years of a graduation pilot in South Sudan. Here, too, the program protected households from the economic impacts of violence. Participants maintained a higher level of wealth and income compared to both a pure control and a cash transfer treatment.

10.5.3 Persistence and Cost-Effectiveness

Since graduation programs are time-bound, their cost-effectiveness depends on how long impacts persist. Indeed, cost-effectiveness estimates in the literature (final column of table 10.1) vary widely partly due to different assumptions about persistence. For example, the benefit-to-cost ratio in Bandiera et al. (2017) is around 1 if we assume that benefits last six years after the program started, and it only becomes positive thereafter. The authors assume that the benefits last for twenty years after the start of the program, at which point the average benefits of the program are 3.21 times larger than its costs.

Two studies in India and Ethiopia conducted follow-up surveys after seven and ten years of the cohorts first studied in Banerjee et al. (2015a). In India, Banerjee et al. (2021a) report that impacts on consumption, income, and assets grow from year 3 to year 7, then stabilize but remain elevated at year 10. This growth is attributed to income diversification from livestock to more lucrative wage employment, including migration to cities. These sustained effects surpass absolute improvements in control households, suggesting that the program helps participants capitalize on macroeconomic trends. Conversely, in Ethiopia Barker et al. (2023) observe a narrowing of impact sizes on wealth from 0.95 standard deviations in year 3 to 0.43 in year 7.

As illustrated in section 10.3, effects are more persistent if the program allows (some) treated households to break out of a poverty trap, while control households cannot catch up. To shed light on this, Balboni et al. (2022) revisited the households from the Bandiera et al. (2017) study in Bangladesh. The authors demonstrate asset dynamics indicative of a poverty trap: Less wealthy households revert to poverty postprogram, whereas wealthier ones accumulate more assets. Heterogeneity within the treatment group reveals that the wealth gap expands over the subsequent eleven years.

The view that many targeted households are in a poverty trap is consistent with another observation that is remarkably consistent across the literature, namely that most studies that report quantile treatment effects on assets, income, consumption, and savings find the largest estimates for the top quantiles (Banerjee et al. 2015a; Bandiera et al. 2017; Bedoya et al. 2019; Botea et al. 2023; Zheng et al. 2023). This is consistent with a poverty threshold, which slightly wealthier households are more likely to pass in response to the program.[7]

10.5.4 Lessons from Null Results

While the overall body of research lends strong support to the effectiveness of the graduation approach, it is also instructive to consider cases where measured effect sizes are smaller.

An early study by Bauchet et al. (2015) evaluates a graduation program in Andhra Pradesh, India. The authors find only modest effects on agricultural assets and no significant effects on other assets, household income, or consumption three years after the start of the program. The authors argue that the intervention was implemented mostly faithfully and address multiple data issues that could potentially explain the null result. Instead, they suggest that during the study period, wages in agricultural labor markets were rising, creating

an attractive alternative to self-employed livestock rearing, of which both treatment and control households took advantage. This interpretation is supported by results showing that gains in livestock earnings for treated households were exactly offset by a reduction in wage earnings. It is also consistent with a high rate of asset sale compared to similar study sites (e.g., the West Bengal arm of Banerjee et al. [2015a]), as treatment households let go of the livestock and pursued more profitable wage labor.[8]

Barker et al. (2023) reach a similar conclusion when interpreting the fading impact in Ethiopia seven years after the program started. Based on the trajectories in absolute outcomes, the authors argue that the reduced impact is primarily due to the control group catching up, rather than an erosion of the gains made by treatment households. Again, the external circumstances seemed to have been such that households could improve their situation without the program, albeit at a much slower rate.

The literature also contains cases where the program implementation was not successful or sufficient. The Honduras site in Banerjee et al. (2015a) shows smaller effects than the other five locations. Here, the authors argue that the livestock assets—in this case, mostly chickens—died from an illness. In Andhra Pradesh, Bauchet et al. (2015) discuss whether the coaching component was not well customized to participants' individual needs. Finally, Balboni et al. (2022) show that in Bangladesh around 30 percent of treatment households revert to the baseline asset level after four years. The authors argue that for these households, the asset transfer was too small to escape poverty.

These experiences highlight the importance of targeting the most vulnerable populations and providing them with a large and comprehensive program. Offering additional insurance for households that experience particularly large shocks may also help to ensure the success of a program. For example, the program in Afghanistan, a particularly volatile setting, had large transfers and offered ongoing veterinary service and replacement of animals that died (Bedoya et al. 2019). Estimated impacts from this program are among the largest in table 10.1.

10.5.5 Program Variants

There is growing interest in studying the individual and joint contribution of separate program components and identifying which components are necessary. Typical studies in this line of inquiry have a factorial design with multiple, overlapping treatment arms. Overall, the available evidence suggests that the full program is most effective and, in particular, training, individual coaching, and consumption support are important complements to the asset transfer (Banerjee et al. 2022; Sedlmayr et al. 2020; Bossuroy et al. 2022). For example, providing only an asset transfer has shown no effect on any outcome in Ghana (Banerjee et al. 2022). While these complementary components seem crucial, dropping access to a savings account did not reduce the overall impact in two studies (Banerjee et al. 2022; Sedlmayr et al. 2020). The evidence is more mixed on whether a large asset transfer is necessary. On the one hand, there were no persistent effects of a human capital-only bundle in Zambia

(Botea et al. 2023) and a savings-only bundle in Ghana (Banerjee et al. 2022). On the other hand, multifaceted programs without a large transfer showed promising results in the Democratic Republic of Congo, Niger, and Nepal (Angelucci et al. 2023; Bossuroy et al. 2022; Janzen et al. 2023). As the asset transfer constitutes a large part of the program costs, these studies estimate particularly high cost-benefit ratios.[9]

Apart from adding or removing program components, we have evidence on two further modalities. First, replacing the in-kind asset transfer with a cash grant of similar value shows similar positive effects on income, assets, and consumption (Gobin et al. 2017; Bossuroy et al. 2022; Botea et al. 2023). Second, replacing individual-level coaching with group coaching (Bossuroy et al. 2022; Botea et al. 2023) or the formation of business groups (Sedlmayr et al. 2020; Angelucci et al. 2023; Janzen et al. 2023) has shown overall promising outcomes while reducing program costs (Schelzig and Jilani 2021; Beam et al. 2022).

10.5.6 Implementation at Scale

As the graduation approach is increasingly adopted by governments, two questions arise. First, are there significant general equilibrium effects, for example, on output prices or wages, as the program is scaled up? Second, can governments successfully implement a program that was first developed by an NGO? A particular concern might be that governments are less well placed to engage communities for targeting and social inclusion.

Estimates of spillover effects on nonparticipants can provide suggestive evidence of the potential general equilibrium effects if a program was adopted at scale. Several of the abovementioned studies estimate such spillovers by assigning treatment at the community level and collecting data on non-eligible households (Bandiera et al. 2017; the Ghana, Honduras, and Peru sites of Banerjee et al. 2015a; Zheng et al. 2023; Botea et al. 2023). Banerjee et al. (2015a) find no evidence of economic spillovers. However, in two of the three sites (Peru and Honduras) overall treatment effects are small. Both Banerjee et al. (2015a) and Botea et al. (2023) find weak evidence of negative spillovers on the mental health of nonparticipants. Bandiera et al. (2017) find no evidence of impacts on the market for livestock produce but an increase in the wage for casual labor. The authors reconcile these findings by arguing that program participants constitute a small share of livestock owners but a large share of casual workers in the village. In contrast to these studies, Zheng et al. (2023) do find evidence of negative spillover effects on earnings plausibly driven by increased competition in the output market. They also show evidence for positive spillovers on asset accumulation, which they attribute to an increase in aspirations.

More direct evidence is provided by studying graduation programs implemented at scale by governments. The evidence available to date suggests that this can be done successfully (Brune et al. 2022; Bossuroy et al. 2022; Botea et al. 2023).

Bossuroy et al. (2022) report the results from Niger, the first of a multi-country study accompanying the Sahel Adaptive Social Protection Program (SASPP). Most SASPP pilots are fully integrated into governments' social safety nets. The majority of the personnel are

Table 10.1
Evidence on the Graduation Approach

			Asset holdings			Income			
Reference	Country	Follow-up	TE	TE as percentage of control mean	TE in standard deviations of control group	TE	TE as percentage of control mean	TE in standard deviations of control group	TE
Banerjee et al. (2015a)	Ethiopia	2 years	1037 (104)	75.2%	0.50 (0.06)			1.438 (0.191)	6.83 (1.93)
		3 years	1077 (109)	68.2%	0.60 (0.07)			0.293 (0.074)	7.37 (1.58)
	Ghana	2 years			0.25 (0.05)			0.156 (0.049)	2.82 (1.42)
		3 years			0.34 (0.06)			0.33 (0.063)	3.22 (1.19)
	Honduras	2 years	106 (53.7)	7.5%	0.01 (0.05)			0.237 (0.051)	0.61 (2.70)
		3 years	13 (65.1)	0.8%	–0.096 (0.05)			0.23 (0.06)	–4.45 (3.11)
	India	2 years			0.65 (0.09)			0.608 (0.114)	6.51 (1.75)
		3 years			0.71 (0.10)			0.666 (0.099)	6.18 (1.78)
	Pakistan	2 years			0.33 (0.06)			0.101 (0.069)	8.86 (3.31)
		3 years	270 (103)	29.4%	0.17 (0.07)			0.128 (0.076)	5.98 (3.40)
	Peru	2 years	168 (101)	3.8%	0.10 (0.04)			0.122 (0.047)	4.18 (4.14)
		3 years	92 (104)	2.4%	0.06 (0.04)			0.108 (0.061)	6.18 (3.59)
Bauchet et al. (2015)	India	3 years	0.35 (0.11)	-		–0.06 (22.6)	0%		–34.57 (53.03)
Bandiera et al. (2017)	Bangladesh	2 years	6.86 (7.26) (4.6)			62.30 (30.17) 20 year			30.19 (25.34) 3.21
		4 years 53.22	39.65 24%	57% 0.313	0.327 0.256	87.80 [10 years]	21% [1.86]	0.627 [0.17]	62.62
			(9.08) (4.01)		(0.029) (0.040)	(28.58) (0.079)		(0.074)	(20.82)
Chowdhury et al. (2017)	South Sudan	0.5 years	535.79 (154.02)						18.590 (6.426)
		1.25–1.5 years	624.79 (146.01)			327.83 (455.95)	8%		4.179 (6.130)
Bedoya et al. (2019)	Afghanistan	1 year	839.076 (58.650)	315%	1.063	68.801 (25.426)	22%	0.177	24.027 (4.224)
Bedoya et al. (2023a)	Afghanistan	4 years	328 (50.4)	476%	1.55	13.4 (4.0)	32%	0.29	0.161 (0.066)
Karimli et al. (2020)	Burkina Faso	1 year	2.14 (0.224)	465%		127258 (21988)	83%		-

consumption			Savings/Financial inclusion		Food security		Cost-benefit analysis		
TE as percentage of control mean	TE in standard deviations of control group	TE	TE as percentage of control mean	TE in standard deviations of control group	TE in standard deviations of control group	Intervention cost per participant	Assumed persistence of effects / dissipation rate	Benefit-cost ratio	Internal rate of return
16%	0.239 (0.068)	707 (32.10)	933%		0.139 (0.068)	$4,157		2.60	0.13
18%	0.347 (0.074)	272 (36.10)	372%		0.186 (0.061)				
7%	0.097 (0.049)	16.80 (3.09)	235%		0.065 (0.044)	$5,408		1.33	0.07
11%	0.136 (0.05)	10.50 (2.39)	191%		0.077 (0.045)				
1%	0.011 (0.049)	55.00 (10.50)	90%		0.136 (0.047)	$3,090		–1.98	-
–6%	–0.07 (0.049)	31.70 (21.70)	39%		0.088 (0.051)				
14%	0.296 (0.080)	-			0.238 (0.068)	$1,455	perpetuity	4.33	0.23
11%	0.228 (0.066)	-			0.278 (0.063)				
10%	0.171 (0.064)	-			0.117 (0.056)	$5,962		1.79	0.10
7%	0.117 (0.067)	-			0.058 (0.059)				
3%	0.048 (0.048)	1.97 (34.10)	1%		0.020 (0.052)	$5,742		1.46	0.08
5%	0.096 (0.056)	45.10 (23.80)	26%		0.064 (0.045)				
-		–65 (62.07)	-			$571	-	-	-
	54.54								
11%	0.22 $1,121 0.341 (0.034)								
		–27.09 (29.76) 81.33 (29.32)			–0.10 (0.09) –0.02 (0.09)	$350–410			
30%	0.412	106.066 (10.488)	2195%	2.09	0.491 (0.053)	1,688 USD current	10 years	2.32	0.26
16%	0.15	9.3 (5.6)	242%	0.23	0.092 (0.058)	1,675 USD current	9 years	1.10	
		25490.6 (3014.437)	95%			$208–228			

Table 10.1 (*continued*)

			Asset holdings			Income			
Reference	Country	Follow-up	TE	TE as percentage of control mean	TE in standard deviations of control group	TE	TE as percentage of control mean	TE in standard deviations of control group	TE
		2 years	2.44 (0.314)	718%		106418 (17001)	68%		-
Brune et al. (2022)	Yemen	4 years	290.15 (66.97)	39%		–29.08 (342.9)	–2%		–2.22 (4.8)
Banerjee et al. (2021a)	India	1.5 years	0.217 (0.111)			0.145 (0.075)	-		0.311 (0.076)
		3 years	0.389 (0.103)			0.172 (0.071)	-		0.292 (0.079)
		7 years	0.814 (0.132)			0.334 (0.070)	-		0.717 (0.125)
		10 years	0.346 (0.121)			0.264 (0.080)	-		0.579 (0.175)
Rahman et al. (2021)	Bangladesh	1 year	14712.3 (1468.7)	102%		274.7 (64.25)	14%		11.37 (2.540)
Beam et al. (2022)	Philippines 443	2 years 104%	4484 0.34 (1044) (101)	43% 0.28	0.23 $672	2893 perpetuity (2785) (0.05)	18% 7.98	0.09	334 (114) [80%, 40%]
Bossuroy et al. (2022)	Niger	6 months			0.18 (0.06)			0.28 (0.05)	
		18 months			0.15 (0.06)			0.31 (0.05)	
Barker et al. (2023)	Ethiopia	2 years	1162 (111.6)	70%	-			1.411 (0.16)	8.21 (2.32)
		3 years	1158 (109.4)	63%	-			0.411 (0.12)	8.561 (1.83)
		7 years	525.3 (133.3)	20%	-			0.244 (0.24)	5.896 (2.81)
Botea et al. (2023)	Zambia	16–18 months			0.33 (0.07)			0.17 (0.07)	
Zheng et al. (2023)	Kenya 56	20 months 325%	190 (22.3)	251%		98 $713.21 (34.2)	18% 10 years		

consumption			Savings/Financial inclusion		Food security		Cost-benefit analysis		
TE as percentage of control mean	TE in standard deviations of control group	TE	TE as percentage of control mean	TE in standard deviations of control group	TE in standard deviations of control group	Intervention cost per participant	Assumed persistence of effects / dissipation rate	Benefit-cost ratio	Internal rate of return
		27666.71 (2583.97)	85%						
–2%				0.44 (0.12)	0.04 (0.07)	$963			
-		–0.004 (0.042)	-		0.184 (0.048)	$2,163	10 years [perpetuity]	3.79 [11.1]	
-		0.192 (0.062)	-		0.251 (0.059)				
-		0.181 (0.135)	-		0.431 (0.062)				
-		0.121 (0.152)	-		0.127 (0.063)				
16%		2187.4 (556.3)	55%			BDT 17,836	20 years	8.47	
8%	0.17 [0.87,–.28]	443							
	0.22 (0.05)			3.45 (0.87)	0.27 (0.04)	$644	perpetuity [25%, 50%, 75%]	18.04 [3.48, 2.08, 1.55]	0.73 [0.58, 0.44, 0.32]
	0.25 (0.05)			3.13 (0.89)	0.25 (0.05)				
16%	0.239 (0.07)	849.7 (38.55)	932%		0.116 (0.05)				
18%	0.25 (0.05)	315.9 (41.88)	372%		0.145 (0.05)	$4,011	projecting continued linear decay as year 3 to 7 [up to year 7]	0.971 [0.718]	
9%	0.172 (0.08)	75.94 (55.29)	31%		0.0351 (0.04)				
	0.23 (0.06)		-	0.66 (0.11)	0.43 (0.08)	$1,049	perpetuity [25%, 50%, 75%]	7.27 [1.27, 0.69, 0.48]	0.36 [0.11, –.14, .39]
	1.7 (8.27)								

public field workers and community volunteers, and only specialized tasks, such as training and community awareness campaigns, are contracted to private providers. Together with a reduction of the asset transfer, this integration has substantially reduced program costs, with costs per participant ranging from US$250 in Niger to US$575 in Mauritania (Andrews et al. 2021). The results from Niger show that such a government-led program can have a positive impact on economic outcomes of comparable magnitude to previous studies of NGO-led implementations.

Similarly, Botea et al. (2023) evaluate a graduation program implemented at scale by the government of Zambia. The program, called Supporting Women's Livelihood, has been adjusted for government implementation and made less costly in three important ways: It is shorter (eight to ten months), provides smaller grants ($225 in cash), and includes group rather than individual coaching. The paper shows that implementation was successful without any NGO involvement and that effect sizes are comparable to previous program evaluations.[10]

As both of the programs in Niger and Zambia achieve substantially lower costs per participant while maintaining sizeable impacts, the benefit-cost ratio estimates in these studies surpass those of NGO-led implementations (table 10.1). Overall, the existing evidence supports the view that governments can successfully implement graduation programs, and that general-equilibrium effects, if present, are not large enough to undermine the program's effectiveness.

10.6 The Future of Graduation: Climate Resilience

Climate change is predicted to cause an increase in the frequency and intensity of natural disasters in addition to slow-onset ecological pressures such as rising sea levels, salinity penetration in groundwater, or desertification. These will put a strain on social protection systems around the world, particularly in rural areas where many people still depend on rain-fed agriculture. In this context, there is an increasing interest in redistributing wealth to protect the people most affected by climate damages.

Recent evidence suggests that graduation programs can protect households from the adverse effects of extreme weather events. These studies combine detailed satellite data on weather with household survey data from randomized experiments of graduation programs in Ethiopia and Bangladesh. In Ethiopia, graduation reduced or eliminated negative impacts of droughts on food security, nutrition, livestock holdings, and intimate partner violence (Hirvonen et al. 2023). In Bangladesh, Balboni et al. (2024) also document protective effects of the program against both floods and droughts. Similarly, Bedoya et al. (2023a) follow up with graduation participants in Afghanistan after a period of severe droughts and other shocks. They provide evidence that treatment households are more likely to recover from such shocks and less likely to resort to coping mechanisms that harm their future prospects, such as taking out a loan or using child labor.

The major challenge for graduation programs is that natural disasters can damage productive assets and prevent households from investing. Additional results in Balboni et al. (2024) show that exposure to adverse shocks before the rollout affects how households respond to the program. Participants in flood-prone areas save more and invest less. This may be a costly coping strategy, adopted in the absence of insurance, which ultimately reduces long-term income.

There are ongoing attempts to adapt graduation to the challenges posed by climate change, such as by insuring participants against adverse weather shocks (Zheng et al. 2023), replacing lost livestock (Bedoya et al. 2019), or providing additional training in disaster risk management (Diwakar et al. 2022). Whether the ingenuity of the architects of graduation can outpace the onset of climate damages will play a key role in shaping the future of social protection and, most importantly, of the people most at risk.

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Notes

1 This count is based on research conducted by the Ultra-Poor Graduation Initiative (BRAC International 2023). See section 10.4 for details.

2 UPGI defines a "Minimum Viable Program" with ten criteria: 1) targeting households in extreme poverty; 2) addressing immediate basic needs; 3) linking to social services; 4) transferring significant resources (assets or training); 5) providing necessary inputs and knowledge for sustainable livelihoods; 6) connecting to savings and financial services; 7) developing saving skills and habits; 8) coaching for new skills, confidence, and agency; 9) offering life skills training; 10) engaging communities for social inclusion. Government-led programs involve significant government roles in design and implementation, even when outsourced to NGOs. UPGI identified eighty government programs, with twenty-four meeting these criteria. The review assesses design but not execution fidelity, noting some programs may not be implemented as planned.

3 These are: i) Economic Inclusion Programme in Cote d'Ivoire Productive Social Safety Net, ii) Livelihood component in Urban Productive Safety Net Project (UPSNP) in Ethiopia, iii) Livelihoods component in Productive Safety Net Programme (PSNP) 5 in Ethiopia, and iv) JEEViKA / Satat Jeevikoparjan Yojana (SJY) in Bihar, India.

4 For example, programs in Yemen, Niger, and Ethiopia used this approach (Brune et al. 2022; Bossuroy et al. 2022; Banerjee et al. 2015a).

5 For the ongoing study in Uganda see: poverty-action.org/impact-graduation-program-livelihoodsrefugee-and-host-communities-uganda; for Bangladesh, see Bhattacharjee et al. (2020).

6 When assessing the welfare implications of graduation programs, the fact that gains are driven in part by an increase in labor supply needs to be accounted for, as there may be opportunity costs or disutility associated with the additional work. Note, however, that participants in Bandiera et al. (2017) had idle labor capacity prior to the program and demand for casual work was highly irregular, suggesting that their opportunity cost of time

was low. Including an opportunity cost of time at the average agricultural wage (assuming unconstrained labor demand), reduces the internal rate of return from 22 percent to 16 percent.

7 One exception is Botea et al. (2023) where the highest treatment effect on an asset index is at the seventy-fifth and fiftieth percentile (followed by the ninetieth). Bossuroy et al. (2022) don't present quantile treatment effects, but supplementary material shows that the effects on consumption are mostly driven by households with above-median consumption at baseline.

8 This study also raises interesting questions regarding the interplay of different social protection programs. Participation in the National Rural Employment Guarantee Scheme rose sharply in this population during the study period. This might have contributed to rising agricultural wages through general equilibrium effects on the labor market (Muralidharan et al. 2023).

9 For a more detailed discussion of this literature, see the working paper version (Heil et al. 2024) and J-PAL (2023).

10 For example, comparing the effect sizes in standard deviations to the pooled results from Banerjee et al. (2015a), they find an increase in household assets by 0.33 (0.258 in Banerjee et al. [2015a]), income by 0.17 (0.383), consumption by 0.23 (0.122), financial inclusion by 0.66 (0.367), and food security by 0.43 (0.107), on a comparable time horizon of two years.

The Handbook of Social Protection

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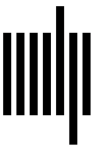

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