

The Power and Roots of Aspirations

A Survey of the Empirical Evidence

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Abstract

Aspirations have become a common theme in empirical economics studies, but there is no unified understanding of the range of outcomes they influence, the factors that shape them, and how to measure them. This paper surveys this growing literature. The paper argues that there is compelling evidence to consider aspirations as a useful lens to analyze human behavior and development outcomes, at the individual and aggregate levels, in poorer and richer countries. The empirical evidence aligns with the theory that high aspirations can lead individuals to achieve better educational, labor market, and other outcomes and can contribute to making countries more equal and prosperous. The empirical evidence also confirms that the mix of

social and circumstantial factors shaping aspirations tends to hinder the aspirations of the disadvantaged—such as the poor, immigrants, and women—and can contribute to vicious circles of poverty, high inequality, low social mobility, and low growth. However, high aspirations should not be considered as an end in themselves as they can backfire, with deleterious effects, if unmatched with opportunities. Further, the paper argues that definitional and measurement issues can affect the understanding of the topic and that studies should more explicitly describe their measures of aspirations to ensure that divergent underlying concepts are not mistaken.

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The Power and Roots of Aspirations*

A Survey of the Empirical Evidence

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1. Introduction

Aspirations caught the attention of economists after the publication of two foundational essays on the link between aspirations and poverty in the 2000s. Ray (2006), an economist, developed theories — first presented in Ray (1998)— on how aspirations (for standards of living, social status, etc.) would influence individual behavior and evolve jointly with a country’s development. He argued that aspirations are eminently social, a person forming her aspirations based on experiences of perceivably similar individuals to her. Such aspirations can serve as productive motivation when they are higher than the individual's situation, but not too much higher as they might generate discouragement or frustration. At the country level, individual aspirations would rise with economic development when inequality is modest and social mobility is high —the standards of living of richer people would seem reachable for those less rich— but turn into frustration with high inequality and low mobility. Appadurai (2004), an anthropologist, powerfully described how culture and social norms shape people’s aspirations and how the context of poverty slashes the ability of the poor to develop high aspirations. Both essays suggested the poor may be trapped in a vicious circle of poverty and low aspirations, either by being unable to develop motivating aspirations given their context or becoming discouraged by being unable to achieve them.

These essays inspired a wave of studies pointing to aspirations and hope as potential factors explaining puzzling behaviors and outcomes among the poor. Thus, aspirations could help make sense of why the poor were missing out on beneficial opportunities or were achieving surprisingly high outcomes from seemingly modest interventions (Banerjee and Duflo 2011; Duflo 2012), or why microbusiness owners might not save, try to get credit, attend business training, or innovate, thus missing opportunities to expand their business (Duflo 2012). Subsequent studies modeled the theory, tested the impact of interventions and events on aspirations and other outcomes, and looked at how aspirations correlate with later outcomes.

In this paper, we survey the empirical literature on aspirations, focusing on the evidence of why they matter and what factors shape them, to help move toward a common understanding for researchers and policymakers. We refer to the theory and highlight definitional ambiguities and measurement issues. The annexes contain a glossary of concepts of relevance to the topic of aspirations (annex 1), summary tables of main definitions (annex 2), and measures of the studies surveyed in this paper (annex 3).

By surveying a broader set of empirical studies, this paper extends three existing reviews, which mainly focus on theory. Lybbert and Wydick (2018) describe the emergence of the study of hope and

aspirations in psychology and other social sciences, and develop a theoretical framework to incorporate this perspective to the study of poverty and anti-poverty programs. La Ferrara (2019) reviews the theory of the relationships between individual aspirations and outcomes as well as some empirical evidence on the formation and consequences of aspirations, and provides a set of policy options to foster aspirations, focusing mostly on education. Genicot and Ray (2020) present the study of aspirations within broader fields in economics, expanding theoretical models on the determinants and role of aspirations for individual behavior and macro phenomena, and survey empirical studies consistent with their theory.

Our survey highlights four main points:

First, there is growing evidence that aspirations are linked to outcomes both at the individual and aggregate level. At the individual level, theoretical models explain that aspirations drive efforts and choices, which in turn influence outcomes (Dalton, Ghosal, and Mani 2016; Genicot and Ray 2020). Empirical studies show that interventions that raised aspirations also achieved better outcomes with aspirations as a plausible main channel (Beaman et al. 2012; Chiapa, Garrido, and Prina 2012; Bernard et al. 2014; Ross et al. 2021; among others); and that individual aspirations in youth correlate with outcomes later in life (Favara 2017; Favara and Sanchez 2017; Ross 2019; Guyon and Huillery 2021; among others). At the country level, theoretical models describe how individual aspirations jointly form with social mobility, inequality, and economic growth, spurring mobility and growth where inequality is moderate and hindering them where inequality is high (Bogliacino and Ortoleva 2015; Genicot and Ray 2017). The empirical evidence of the link between aspirations and aggregate outcomes is scarce. But one study shows that assumed changes in aspirations through exposure to Western TV in East Germany before Reunification affected the income distribution a few years after reunification, increasing poverty and income inequality (Fourrier-Nicolai and Lubrano 2019).

Second, there is evidence that raising aspirations does not necessarily lead to better outcomes and could even have perverse effects when unmatched with opportunities. Indeed, the theory argues that high aspirations that do not materialize can lead to frustration, shifting aspirations from one dimension to another (e.g. to religion), raising social tensions and, in extreme cases, fostering crime or terrorism (Ray 2006, 2016). Some empirical insights coherent with the theory show that past a threshold too far off one's initial conditions, aspirations do not correlate any longer with higher outcomes, possibly due to frustration (Janzen et al. 2017; Ross 2019; Bloem 2021). Moreover, some evaluations show that social programs can initially raise aspirations but eventually generate frustration when aspirations are not met by improved circumstances (Galiani, Gertler, and Undurraga 2021; Acevedo et al. 2020; McKenzie, Mohpal, and Yang 2021). At the aggregate level, some studies are consistent with the

theory that reduced opportunities can lead to religious revival (Binzel and Carvalho 2017), unrest (Campante and Chor 2012, Urzúa 2012, Flechtner 2017) and terrorism (Brockmeyer et al. 2020).

Third, aspirations are inherently social and undoubtedly circumstantial. Theory makes a strong case for it, especially for the poor who may come to believe that they can achieve little (Appadurai 2004; Ray 2006; Dalton, Ghosal, and Mani 2016). Others—such as parents, peers, teachers, leaders, etc.—exert tremendous influence on aspirations by acting as role models or promoting social norms. Empirical studies show that role models (Beaman et al. 2012; Macours and Vakis 2014, 2016; Riley 2019; Breda et al. 2020) as well as neighbors or peers (Bernard et al. 2014; Gagete-Miranda 2020; Galiani, Gertler, and Undurraga 2021) influence one’s aspirations and outcomes. The place of residence, living standards and life experiences can weigh heavily on what one gets to know and perceives as possible. For example, empirical evidence shows more directly that adverse circumstantial factors such as conflicts and natural disasters can crush hope and aspirations (Kosec and Mo 2017; Moya and Carter 2019). This is consistent with the nonlinear evolution of educational aspirations of adolescents over time, suggesting that their aspirations evolve with their circumstances (Favara, Chang, and Sánchez 2018).

Fourth, while the bulk of empirical studies points to consistent insights, measurement issues can challenge our understanding of the issue across studies. All empirical measures of aspirations are based on self-reported questions from surveys. However, aspiration measures often differ in the underlying concept they capture but they are rarely the subject of validation or even discussed. Most authors have a common understanding of aspirations as multidimensional and motivating, but the questions used to capture them in surveys differ in their formulation, possibly leading to different results and policy conclusions (see annex 3 for the list of the measures of aspirations used by the empirical studies cited in this paper).

The paper is organized as follows. Section 2 provides a background by defining the concept of aspirations; section 3 discusses empirical measures of aspirations and their challenges. Section 4 presents the empirical evidence of why aspirations matter after referring to the theory. Section 5 addresses the evidence and theory of the drivers of aspirations. Section 6 concludes.

2. What aspirations are

We understand aspirations as people's desires for the future with respect to various aspects of their life and well-being. Aspirations are about life goals, which can refer to any specific long-term outcome—such as education level, type of job, wealth, health, political power, and social status—or a mix of them (Ray 2006). Aspirations can be for oneself or for someone else, such as parents' aspirations for their children.

Aspirations influence behavior as an evolving reference point, affected by one's situation. In theory, aspirations motivate people to make efforts and choices towards achieving them (Dalton, Ghosal, and Mani 2016; Ray 2006; Genicot and Ray 2017). Aspirations can evolve over time as an individual's situation and information change (Appadurai 2004; Ray 2006; Dalton, Ghosal, and Mani 2016).

Aspirations depend on information and socially influenced preferences thus they do not necessarily align with one's potential. While aspirations can be hard-but-plausible motivating goals, they can also be low, restricted goals. Indeed, since the awareness of opportunities affects aspirations — consciously or unconsciously — living in isolation or having a limited knowledge of available opportunities can dwarf aspirations (Appadurai 2004; Ray 2006; Bernard and Taffesse 2014). Likewise, aspirations also capture preferences for specific opportunities, which, as explained further in this review, form in close interaction with social groups, based on what people perceive as appropriate given social norms and experiences (Appadurai 2004; Ray 2006).

Several concepts related to beliefs and mental models are sometimes confused with aspirations. These concepts capture a range of dispositions, including optimism towards the future and the degree to which one feels in control of his life, which strongly influence aspirations but are distinct from them. These beliefs include hope (how optimistic people are about their future; Lybbert and Wydick 2018), locus of control (the degree to which people believe that their lives are under their control rather than determined by external factors; Rotter 1966), and self-efficacy (belief that one is able to achieve his objectives; Bandura 2001), among others.¹ While they are related and sometimes coincide, aspirations are also different from expectations, which are the outcomes people feel they will most likely achieve (Bernard et al. 2014; La Ferrara 2019). Annex 1 defines these concepts and a few others belonging to the semantic field of aspirations.

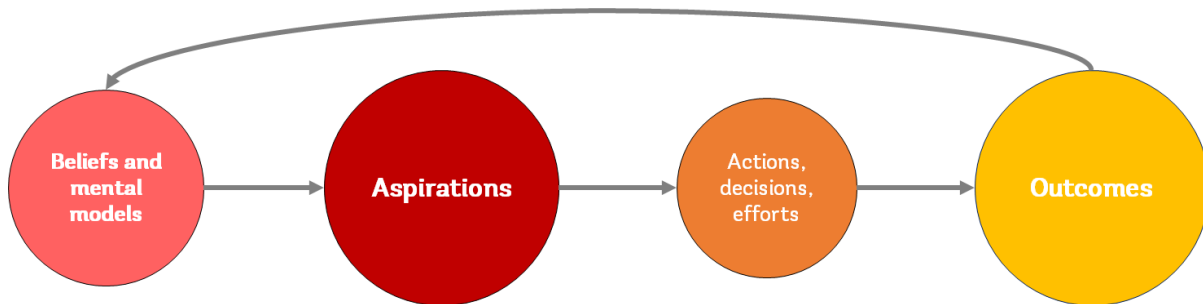
Economic studies on aspirations generally align to this basic conceptualization of aspirations. While most studies do not define explicitly their concept of aspirations, they tend to align—at least

¹ For examples of studies measuring these beliefs, see Bloem et al. (2018) and Lybbert and Wydick (2018) for hope; Lybbert and Wydick (2016) for locus of control; and Bernard, Dercon, and Taffesse (2011) and Esopo et al. (2018) for self-efficacy.

implicitly—in that they consider aspirations for the future as multidimensional and motivating (see annex 2).

In sum, aspirations are linked to outcomes through their influence on actions, decisions, and efforts and by being shaped by realized outcomes. The latter do so by altering beliefs and mental models, which in turn shape aspirations. Figure 1 summarizes these links.

Figure 1. Links between aspirations and outcomes and intermediary factors



Source: own elaboration.

Note: the figure aims to highlight the main links between aspirations, outcomes, and intermediary factors. As such, it omits other links that could exist between them for the sake of simplicity.

3. Measuring aspirations

In this section we review how aspirations are measured and identify two broad set of issues that are important to keep in mind when interpreting the results of empirical studies: conceptual issues and measurement issues.

3.1. Measuring aspirations through surveys

All empirical studies measure aspirations through self-reporting. Household surveys and impact evaluation surveys contain questions such as: “What is the highest education level that you would like to complete?” Some ask parents about their aspirations for their children instead of or in addition to the children’s own aspirations.² Researchers then use these answers to build indexes to study them, usually as determinants or outcomes.³ Some studies also measure aspirations in terms of Ray’s (2006)

² See for example Beaman et al. (2012); Chiapa, Garrido, and Prina (2012); Favara (2017); Mukherjee (2017); Bernard et al. (2014); Janzen et al. (2017); Glewwe et al. (2018); Bloem et al. (2018).

³ In the case of educational aspirations, for example, responses to the aspirations question can be turned into an index of in which the aspired educational level is translated in years of schooling (e.g. Bloem et al. 2018) or can be a dummy taking the value of 1 if the respondent aspire to a given minimum level (e.g. secondary or tertiary education) (Favara 2017; Guyon and Huillery 2021). For job aspirations, an index can assign categorical values for the education required by the aspired occupation, such as no education, some college, or graduate school (Guyon and Huillery 2021), or represent the sum of the average educational and income levels of the aspired occupation based on national labor force survey data (Pasquier-Doumer and Risso Brandon 2015).

concept of an aspiration gap: relative to one's initial situation rather than in absolute terms (Janzen et al. 2017; Dalton, Rüschenpöhler, and Zia 2018; Ross 2019; Garcia, Lensink, and Voors 2020; Bloem 2021). Annex 3 lists the measures of aspirations used by the empirical studies cited in this paper.

Surveys may include one or several domains of aspirations. By far, the most studied domains are education and jobs (e.g. Pasquier-Doumer and Risso Brandon 2015; Favara 2017; Roy, Morton, and Bhattacharya 2018; Carlana et al. 2018; García, Harker, and Cuartas 2019; Guyon and Huillery 2021). But studies also capture measures of aspirations in terms of other outcomes such as income, wealth, and social status (Bernard and Taffesse 2014; Kossec and Mo 2017); age of marriage and leadership potential (Beaman et al. 2012); housing (Galiani, Gertler, and Undurraga 2021); agricultural landholdings and remittances (Bloem et al. 2018); business outcomes (Dalton, Rüschenpöhler, and Zia 2018); and general life (Garcia, Lensink, and Voors 2020). When measuring several domains, researchers usually combine the index of each domain into an aggregate index of aspirations (Beaman et al. 2012; Bernard and Taffesse 2014; Bloem et al. 2018). While the aggregate index masks the contribution of each domain—which could be divergent—it is intended to capture the multidimensionality of aspirations and reduce the measurement errors of each domain, inherent to attitudinal measures (Bernard and Taffesse 2014).⁴

3.2. Conceptual issues: Interpreting measures of different concepts of aspirations

The wording and concepts invoked in the survey questions vary substantially across surveys, leading to measuring different concepts under the same label of “aspirations.” In annex 3, which highlights the measures used in 26 empirical studies in economics on aspirations, we identify measurement of 13 different underlying concepts, either one concept at a time or a mix of several if the measure is based on several questions. Most studies measure aspirations as wishes or wishes without constraints—asking the level of an aspiration the respondents would like to reach, including in a scenario without any obstacle. Other studies capture more tangential concepts such as expectations or sufficient needs, or mix questions about aspirations as wishes with concepts such as belief, preferences, hopes, and social norms. Sometimes, differences in wording and underlying concepts are motivated by translation

⁴ Dimensions are usually bundled together and weighted equally when aggregated, but alternative approaches exist. Beaman et al. (2012) keep separate one dimension of their four measured aspiration domains (aspirations for leadership) because it correlates much lower with the other three (educational attainment, future occupation, age of marriage after 18), which they aggregate together. Bernard and Taffesse (2014) propose a weighting system based on what respondents value most, which they express by allocating beans over pictures representing dimensions of aspirations during the survey (income, wealth, education of their eldest child, and social status). They find that respondent weight differently the relative importance of various domains, but that the weighted index does not correlate much more strongly with expected correlates (educational level, age, gender, and investment behavior) than the non-weighted index. They recommend, however, incorporating the weighting in surveys given the ease of implementation and the possibility of resulting in larger differences in results for other studied samples than theirs.

and cultural adaptations (Bernard et al. 2004; Janzen et al. 2017, Bloem et al. 2018).⁵ Yet, these differences can lead surveyed individuals to respond differently, which could affect the study's results and potentially the policy responses.

A key difference in survey questions is whether respondents are asked about their aspirations without any constraint or not. Indeed, some studies inquire about a desired outcome in a hypothetical scenario with no constraints, with questions such as “*Imagine you had no constraints and could study for as long as you liked. What level of formal education would you like to complete?*” (Favara 2017; Roy, Morton, and Bhattacharya 2018; Ross 2019; Johnson et al. 2020) and “*What is the highest level of education you would like to complete if finances and opportunity of the school/college are available?*” (Dhar, Jain, and Jayachandran 2020). Some others do not evoke a hypothetical barriers-free scenario and ask about the level of one dimension that one “would like,” “aspire,” or “intend” to reach (Beaman et al. 2012; Bernard et al. 2014; Mukherjee 2017; Bloem et al. 2018; García, Harker, and Cuartas 2019). And some explicitly ask about aspirations as options respondents feel able to achieve. Guyon and Huillery (2021) ask students about their educational aspirations as the options they prefer—in terms of level and track—among those they know and they feel capable of doing (by asking them beforehand to cite educational options without giving them a list); Carlana, La Ferrara, and Pinotti's (2018) aspiration index for students builds on two questions, including: “*independently from your educational aim but thinking about your abilities, do you think you could get a... (“university degree”/ “white collar job”/ “managerial job”)?*”

Measuring different concepts can affect results and interpretation for policy advice. Two studies on the impact of the national conditional cash transfer program in Colombia on parents' “aspirations” for their children measure different underlying concepts and have divergent conclusions. García, Harker, and Cuartas (2019) [GHC] find “a positive impact on aspirations for higher education, for both children and parents” after a year of exposure in 2003. Meanwhile, Contreras Suarez and Cameron (2020) [CSC] conclude that there is no evidence of impacts on aspirations for children's education after 10 years, in 2012, based on the same baseline sample of surveyed beneficiaries and non-beneficiaries in 2002. The policy conclusions are also different: GHC suggest that this type of program may be improved by incorporating mechanisms to shift the beliefs of parents and children towards education whereas CSC suggest that the benefits of cash transfers lie solely in the additional

⁵ For example, Janzen et al. (2017) opt for the wording “What level of yearly income do you personally think you *might be able* to achieve in the future?” for their study in Nepal given that expressions related to “wish”, “hope”, and “would like to” evoke wishful thinking in Nepali and might lead to unrealistic answers. Bloem et al. (2018) include a question on aspired income in their survey framed as “What level of income do you *need to feel financially secure*” —in addition to a question framed as “would like”— to their survey in a mostly Hinduist region of Myanmar over the concern that respondents may either (i) restrict themselves in their responses given that wishes of income beyond moderate needs are socially discouraged, or (ii) report an aspired income out of proportion.

monetary resources. While it is possible that aspirations changed over time, a key difference between the studies is how they measure aspirations. GHC's survey question captures something closer to what we would define as parents' aspirations ("*Which educational level would you like your child to attain?*"), while CSC measure something more akin to parents' expectations ("*By the time the child is age 18, what is the probability the child will have completed secondary education?*" and "*What is the probability that the child will graduate from tertiary education?*"). While each concept is interesting in its own right, both studies talk about aspirations but with different questions that might be measuring different concepts. Expectations, which refer to the most likely outcomes given one's perceived situation and barriers, can be expected to be lower than aspirations, which capture a notion of wishes. GHC indeed show that expectations are sizably lower than aspirations in this very context: in 2003, 33 percent of beneficiary parents aspire to university for their children while only 14 percent expect it to be the case (being asked "*which educational level do you think your child is more likely to attain?*").

Another type of question used to capture aspirations relates to "needs." Some studies frame their survey questions on income aspirations in terms of the level of income respondents consider "sufficient" and an "absolute minimum" (Stutzer 2004; Knight and Gunatilaka 2012). One study in Myanmar finds that a measure of income aspirations based on "wants" ("*What level of income would you like to achieve in your life?*") and one based on "needs" ("*What level of income do you need to feel financially secure?*") correlate similarly with people's real estate expenditures, but correlate in opposite direction with their peers' average ("wants" positively while "needs" negatively), suggesting they are different concepts (Bloem 2021).

Other measures that have been used are: i) girls' perception of gender roles and of suitable age for marriage and childbearing as a proxy for aspirations influenced by social norms (Del Carpio and Guadalupe 2018; Bandiera et al. 2020; Dhar, Jain, and Jayachandran 2020); and ii) attitudes about the future thought to be linked to aspirations, such as measures of depression and feelings towards the future (Macours and Vakis 2014) or planning horizon for future expenditures (Laajaj 2017). These are related but distinct concepts to aspirations and may not relate similarly with other variables of interest.

3.3. Measurement issues: Quantification, survey design, and validation

We identify three main measurement issues.

First, like many other concepts in human development and economics, aspirations are tricky to measure. Broad dimensions of aspirations for the future beyond material standard of living —e.g. "a good life", "dignity", "recognition"— can hardly be translated into quantifiable measures. This implies that measures often focus on a limited set of quantifiable dimensions (e.g., years of education,

earnings of aspired occupation, etc.), which are certainly central but may only partially reflect people's aspirations and their motivational power. Moreover, when aggregate indices combine various dimensions of aspirations to capture their multidimensionality, they are also limited by the constraint that each dimension must be monotonously related to the outcome of interest to be handily interpreted (Bernard and Taffesse 2014). On the other hand, having one broad question on life aspirations, presented in an index with a 1-to-10 scale, such as in Garcia, Lensink, and Voors (2020), may sound abstract to respondents, leading to most of them reporting high levels.⁶

Second, another issue that shapes discrepancies across studies is the use of preliminary questions that can prime respondents. Thus, some surveys ask first about the respondents about their assessment of minimum and maximum possible outcomes before asking theirs (e.g. Bernard and Taffesse 2014), while other studies do not. That is likely to also influence respondents' answers and hence studies' results.

Third, there is hardly any discussion of how the framing of the questions might affect the answers. Only a handful of studies scrutinizes the reliability of their measures or discusses their limitations. This is despite the fact that measures of aspirations based on self-reported assessments are subject to some of the same typical biases of survey-based measures of personality traits and socioemotional skills (Laajaj and Macours 2019): desirability bias (willingness to respond as though the society would value), wording and scale dependence (influence of the way in which questions are asked and of how many response options there are on the final scoring in the measure), and possible instability over respondents' moods (Bernard and Taffesse 2014). Only one study tests the consistency of its aspiration instrument: in piloting a survey-based instrument for an experiment in Ethiopia, Bernard and Taffesse (2014) find that when asked the same questions two weeks apart, respondents tend to report consistent aspirations for their education and wealth but much less so for income and social status. Moreover, they find that responses about aspirations are not sensitive to the respondents' self-reported mood nor to whether the respondents are asked first about their peers' aspirations.

These differences in questionnaires and the lack of systematic validation are problematic because they can affect the results and the policy implications. Differences in the dimensions of aspirations considered across studies are not an issue because they depend on the research question and the context. However, differences in the captured concept (e.g. wishes, wishes without constraints, expectations, etc.) and in the wording of the survey questions used to measure aspirations for a same dimension may matter for policy if they yield different results. A systematic discussion of how the

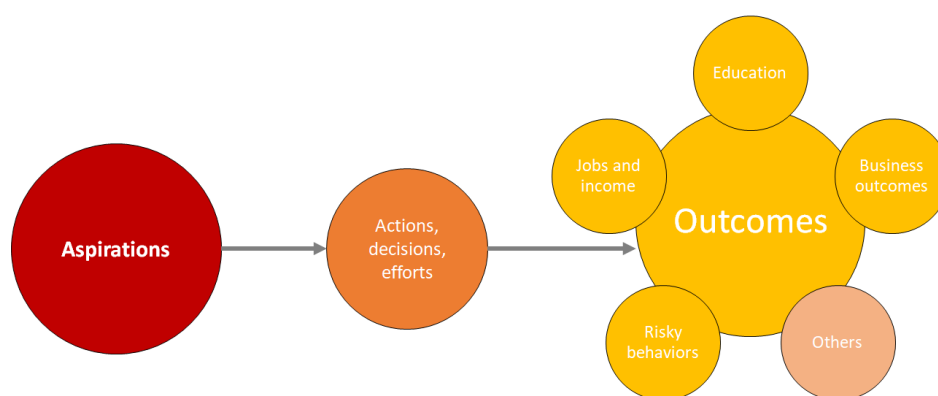
⁶ In Garcia, Lensink, and Voors (2020), respondents aspired on average to reach the ninth level of life aspirations.

framing of the questions or other aspects differ from similar studies and how it might affect the answers should be included in any study of the topic.

4. The power of aspirations

Available empirical evidence aligns with the theory on the links between aspirations and outcomes. The theory, described in the next subsection (4.1), posits that aspirations can lead to vicious and virtuous cycles of poverty and inequality, which can be observed at the individual and country levels. There is a wealth of empirical evidence on the links between aspirations and a range of outcomes, such as education, labor market outcomes, risky behaviors, and others (figure 2). The evidence, summarized in subsection 4.2, is based on a range of interventions that resulted in an increase in both beneficiaries' aspirations and outcomes, pointing to higher aspirations as the main channel, and longitudinal studies showing correlation between aspirations and subsequent outcomes. The last subsection (4.3) presents studies supporting the claim that the motivating power of aspirations may mutate into frustration when aspirations are unmatched with opportunities. Details of the measures of aspirations used in the empirical studies discussed can be found in Annex 3.

Figure 2. Types of outcomes that aspirations can influence



Source: own elaboration.

4.1. How aspirations relate to individual and aggregate outcomes in theory

The theory shows how aspirations can lead to vicious cycles of poverty or virtuous cycles towards prosperity (Appadurai 2004, Ray 2006, Duflo 2012; Dalton, Ghosal, and Mani 2016; Genicot and Ray 2020). As reference points guiding people's choices and efforts, aspirations affect outcomes. The context of poverty (i.e. low resources, isolation, despair, lack of successful role models) may hinder the development of high aspirations as individuals feel the impossibility, for example, of completing an advanced level of education, getting a decently paid job, or developing a successful business. This

may prevent them from taking advantage of opportunities and restrict their ability to strive to improve their lot and ultimately escape poverty. This vicious circle may be reproduced over generations when poor parents with low aspirations for themselves develop low aspirations for their children as well. By contrast, high enough aspirations can motivate people toward higher outcomes, which in turn would raise even higher their aspirations and outcomes.

The theory also posits that people's aspirations evolve jointly with aggregate outcomes, such as a country's inequality, perceived social mobility, and economic growth (Ray 2006, Genicot and Ray 2020). As with poverty, aspirations and inequality entertain a vicious self-reinforcing relationship. In a country with very high inequality, or with low social mobility (or perception of such), people with less income may develop a sense of hopelessness that lowers their aspirations and leads to underinvestment and worse outcomes—perpetuating inequality and making the country's economy grow below its potential (Bogliacino and Ortoleva 2015; Genicot and Ray 2017, 2020). On the other hand, when inequality is lower, less wealthy individuals may be more motivated to catch up with the higher social status of their richer peers, leading to more effort and economic growth (Stark 2006; Genicot and Ray 2017).

But the early theory of aspirations in economics also warns about the risk of high aspirations when unmatched with opportunities (Ray 2006). For example, raising aspirations through economic growth or an increase in educational attainment, but without creating opportunities for some of these aspirations to be fulfilled can result in frustration. This frustration could lead individuals to become demotivated, to look for aspirations in other realms of life (e.g. in religion), or — in extreme cases — choose dark alternative paths such as crime or terrorism (Ray 2006, 2016; Genicot and Ray 2017, 2020). This view could explain seemingly paradoxical protests in times of economic growth and lower inequality and poverty: the initial progress would increase aspirations for better outcomes and policy that may not be met and may result in protests (Ray 2006; 2016; Flechtner 2017).

4.2. Empirical evidence on the links between aspirations and outcomes

Educational outcomes

Establishing quotas for women as local leaders raised the aspirations and educational outcomes of adolescent girls in mostly poor and rural areas of the state of West Bengal, India. In 1993, India set up quotas to reserve one-third of local government positions to women to increase their scarce presence in leadership, thus changing perceptions about women's abilities to govern. The aspirations of adolescent girls about education, jobs, and marriage were strikingly higher in villages where quotas

were maintained longer than in the other villages, almost closing the gap with boys (Beaman et al. 2012).⁷ Parents' s aspirations for their daughters increased dramatically as well. Longer exposure to quotas also led to girls' higher attendance and completion, improved literacy, and lower time spent doing household chores. As the aspirations and outcomes of boys did not substantially change, the impact has likely been driven by the role models that women local leaders came to represent for girls. By being exposed to women in leadership positions, girls and their parents may have changed their views on their own abilities, changing their aspirations, which in turn increased their education and employment outcomes.

In Colombia and Mexico, studies show that conditional cash transfers (CCTs) raised beneficiaries' aspirations, in parallel to another strand of studies showing that CCTs increased beneficiary children's schooling outcomes.⁸ In Colombia, one year after households started receiving a cash transfer, parents and children were respectively 11 and 20 percentage points more likely to aspire to higher education (García, Harker, and Cuartas 2019). In Mexico, parents who were beneficiaries of the national CCT program increased their aspirations for their children's education by a third of a school year (Chiapa, Garrido, and Prina 2012). Earlier research also shows that children in beneficiary households completed more schooling, both in Colombia (Baez and Camacho 2011) and Mexico (Behrman, Parker, and Todd 2011). CCTs may have raised beneficiaries' aspirations and outcomes through meetings between beneficiaries and program staff and health professionals (Chiapa, Garrido, and Prina 2012; García, Harker, and Cuartas 2019). The information provided by the professionals and their influence are likely to have influenced beneficiary households' valuation of education. The cash transfers may also have given them the opportunity to have bigger dreams for their children, increasing their bandwidth by reducing their concern about surviving day by day and the opportunity cost of their children attending school (García, Harker, and Cuartas 2019).

Tenth graders in Mexico who received information on the benefits of education and the availability of higher-education scholarships got higher math scores in a national test two years later. Girls who received the information sessions had higher educational aspirations, were more likely to choose to study economics in high school and were less likely to wish to be married at ages 18-20—a possible indication of their desire to go to university (Avitabile and de Hoyos 2018). The effect of these sessions can come from changes in girls' aspirations that lead them to consider educational options and life

⁷ The aspirations index is based on four variables: (1) not wishing to be a housewife or whatever in-laws prefer, (2) wishing to have a high-education job, (3) wishing to marry after age 18, and (4) wishing to graduate or get higher education.

⁸ CCTs give cash to poor households with children under the condition that they attend school regularly and get vaccinated. It is one of the most popular anti-poverty programs in the world.

trajectories they had not considered before or to change their view on their abilities to do successfully the ones they knew.

In parallel, a set of observational studies based on panel data consistently show positive correlations between aspirations and outcomes later in life, even when controlling for confounding factors. For the case of education, young people aspiring to go to college in Ethiopia, India, Peru, and Vietnam were more likely to attend postsecondary education as young adults (Favara, Chang, and Sánchez 2018). Higher aspirations also correlate with better academic outcomes: students in France with higher educational aspirations at the beginning of ninth grade also have better test results at the end of the grade and a higher probability of assignment to an academic track than a vocational track in grade 10 (Guyon and Huillery 2021). Similarly, in Brazil college aspirations of ninth graders are highly correlated with class attendance in eleventh grade, students' performance in twelfth grade, and with a lower probability of dropping out during secondary school (Gagete-Miranda 2020). Following the theory, a plausible channel is that children with high educational aspirations exert more efforts in their studies, perform better and complete more years of schooling. It is also likely that, along the way, adolescents' better schooling outcomes reinforce their aspirations and vice versa.

Labor market outcomes

Higher aspirations correlate with better labor market outcomes. The higher aspirations leading to increased education are likely the channel through which aspirations correlate with better labor market outcomes. For example, in Great Britain, individuals who were 16 years old in 1986 who aspired for better quality jobs had higher earnings 26 years later in their mid-careers (Green et al. 2018).

International child sponsorships have been found to increase aspirations and labor market outcomes. This is a program whereby sponsors from high-income countries provide a monthly cash transfer and pay for mentoring and social activities with church and community volunteers. It has been found to raise children's hope and self-efficacy, which are thought to be some of the drivers of aspirations (Glewwe, Ross, and Wydick 2018). In Indonesia, Kenya, and Mexico children beneficiaries of this type of program increased their educational aspirations (Ross et al. 2021). Moreover, this type of program increased schooling, employment quality, labor force participation, and monthly income of formerly sponsored adults in Bolivia, Guatemala, Kenya, Uganda, India, and the Philippines (Wydick, Glewwe, and Rutledge 2013, 2017).

Aspirations also correlate with better outcomes for microentrepreneurs, who represent the bulk of employment in low- and middle-income countries. Research on small-scale retailers in Indonesia shows that a one standard deviation increase in sales aspirations is associated with 36-percent higher

monthly sales and 50-percent higher monthly profits one year later (Dalton, Rüschenpöhler, and Zia 2018).

Income distribution

Aspirations are also linked to inequality. A study finds that that exposure of East German households to Western German TV broadcasts in 1990 before the reunification — assumed to capture to socially-influenced aspirations — resulted in higher poverty and income inequality after reunification, in 1992-95 (Fourrier-Nicolai and Lubrano 2019). One explanation could be that only top income earners got motivated to reach the higher standards of living of their western neighbors, while middle and bottom earners instead became despaired by the seemingly unachievable reality.

Risky behaviors

Adolescents with higher aspirations also tend to avoid more risky behaviors in young adulthood. In Peru, 15-year-olds aspiring to complete university are less likely to engage in crime at the age of 19 (Favara and Sanchez 2017). Moreover, while Peruvian adolescent girls have more unprotected sex than boys, girls who aspire to complete university are less likely to have unprotected sex. A possible explanation is that aspiring to more education and completing more of it give a track that diverts from dangerous paths with risky behaviors and crime.

4.3. Empirical evidence on the frustration generated by high aspirations unmatched with opportunities

Individual frustration from deceived aspirations raised by social programs

A piece of empirical support for the frustration caused by unmet aspirations described by the theory is lower aspirations or altered behaviors following increased aspirations.

Small-scale entrepreneurs who benefited from an aspirations training in a microcredit borrowing group in the Philippines set higher savings goals but ended up with much lower savings as well as reduced borrowing and business investment (McKenzie, Mohpal, and Yang 2021). The training, which encouraged participants to set ambitious life goals and associated savings targets, led them to set higher savings goals two years later, especially for education. But beneficiaries on average only saved 5 percent of their savings goals, roughly the same as beneficiaries of an alternative treatment providing financial education skills. Instead, beneficiaries of the treatment on aspirations borrowed 15 percent less and invested in their business 30 percent less. Training caused participants to set ambitious savings goals and make budgets, but they did not reduce their spending. As a result, they were far from

meeting their savings goals and reduced their investments, likely because of frustration. Strikingly, the training reduced participants' internal locus of control, that is their beliefs that their own actions determine their financial success. Such a change in beliefs could have reinforced the discouragement effect, further lowering participants' desire to invest in their businesses.

A housing intervention in slums in El Salvador, Mexico, and Uruguay, showed how non-beneficiaries experienced frustration for aspiring to similar housing to beneficiaries but being unable to get it. While the housing aspirations of neighbors of slum dwellers who got a new dwelling initially increased, especially in urban neighborhoods, eventually both their aspirations and household investment decreased after 24 months, suggesting their increased aspirations due to their neighbor's improved situation were unfulfilled and frustrated (Galiani, Gertler, and Undurraga 2021). No aspirational effect was found in rural slums, which may be due to the higher gap faced by rural dwellers.

Consistently, some program evaluations show disappointment after failure to get the programs' benefits or expected future benefits. After initially raising men's expectations along with women's during training, a vocational and socioemotional skills training for youth in the Dominican Republic lowered men's employment expectations after a few months facing dire labor-market conditions (Acevedo et al. 2020). In South Sudan, youth expecting a business grant that eventually could not be delivered reduced their consumption and reported lower levels of trust (Müller, Pape, and Ralston 2019).

Individual frustration manifested by nonlinearity between aspirations and outcomes

Another piece of empirical support is that high aspirations correlate with better outcomes up to a limit. Indian adolescents' educational outcomes at age 19 correlate positively with the size of their aspirations gap of at age 12—the difference between the wages corresponding to their aspired job and education, and the wages corresponding to their parent's occupation—up to a point (Ross 2019). The turning point in which higher aspirations do not correlate with higher later outcomes is a difference between aspired wage and parents' wage (the aspiration gap) of the equivalent US\$6 to US\$7, about seven times the average parents' wage (US\$1), twice the average aspiration gap (US\$3.2), and one and a half times the average aspired level (US\$4.2). Beyond the turning point, adolescents had worse outcomes than those in the turning point, although not as worse as those with too low aspirations compared to their initial status. Specifically, those too far off got 0.5 fewer years of education at age

19 and scored lower on the math and Telugu test by 0.17 and 0.15 standard deviations.⁹ Similar nonlinear relationships were found between the income aspirations gap and real estate investment measured by expenditures on household construction materials and land in rural Myanmar (Bloem 2021), and between women's aspirations for personal income and for their children's education and their savings and expenditures on their children's education in rural Nepal (Janzen et al. 2017).

Collective frustration spurring aspirations along other dimensions

There is some evidence consistent with Ray's (2006) theory that unfulfilled aspirations —say for jobs or social status, initially high enough to motivate but unfulfilled by a lack of opportunities— could lead individuals to seek aspirations in other realms of life, such as religion. For example, one of the possible factors for the religious revival seen in Egypt is that religion has helped individuals to cope with unfulfilled aspirations caused by the abrupt decline in social mobility coupled with rising inequality and poverty (Binzel and Carvalho 2017).

Some evidence is consistent with the theory that extreme cases of unfulfilled aspirations may lead to unrest (Ray 2006, 2016). The Tunisian Revolution, a series of street protests in 2010-11, is thought to have resulted from higher aspirations given increased educational attainment but stagnating job opportunities (Campante and Chor 2012). The causes of protest are always complex and multiple, but the high unemployment, which, including many jobseekers with university degrees, is thought to have been one of the factors that sparked tensions. A similar phenomenon happened in Chile in 2012 when higher access to universities, largely financed through scholarships and student credits, had initially raised high expectations in the population for their future but then converted in discontent after stagnant social mobility, labor market conditions, and poverty (Urzúa 2012; Flechtner 2017). Somewhat paradoxically, protests and social tensions are more likely to improve when countries improve their conditions (e.g. higher economic growth, less inequality) because people raise their aspirations, which may then not be fulfilled (Ray 2006).

Further, the study of international recruits of the terrorist organization of the Islamic State of Iraq and the Syria (ISIS) brings a suggestive example that is consistent with the theory that extreme cases of unfulfilled aspirations may also lead to terrorism. Using personal records from the terrorist organization, a study shows that higher unemployment rates for a given educational level in a given country — an indicator of a lack of opportunities — for 59 countries from which the recruits were

⁹ Adolescents who aspired for an education level and occupations with wages too close to their initial situation had close to three fewer years of education completed seven years later, at age 19, and scored lower on exams of math, English, and Telugu (the local language) between 0.6 and 0.9 standard deviations.

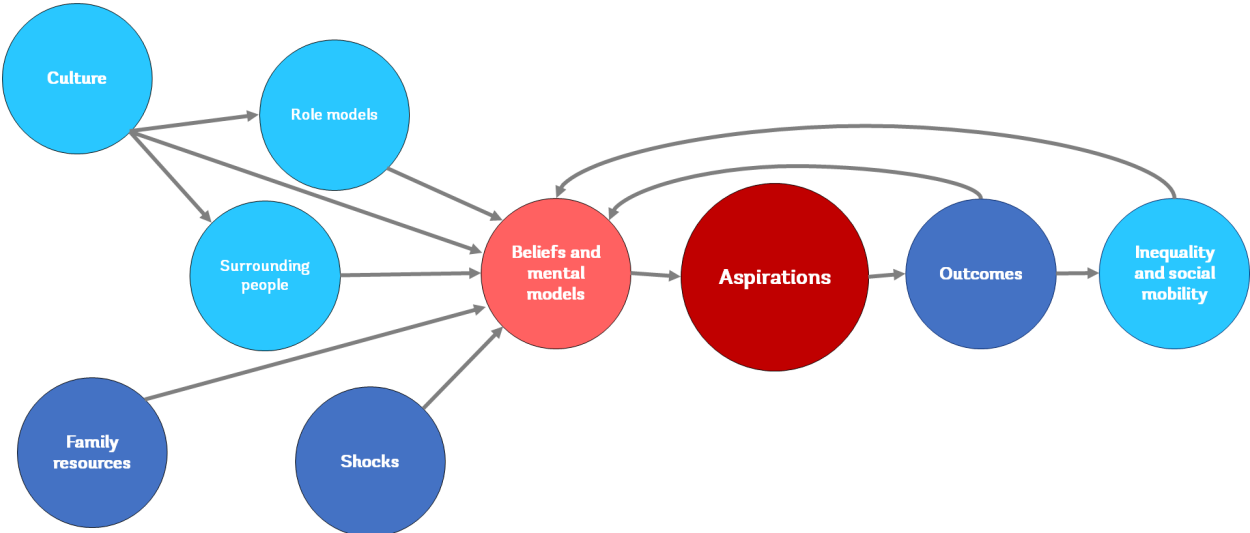
from contributed to more enrollment in ISIS, especially for countries that are geographically closer to Syria (Brockmeyer et al. 2020). While the lack of opportunities is certainly not the unique factor, it may be a striking one when combined with social exclusion.

5. The roots of aspirations

The evidence on the roots of aspirations is harder to establish than its power. The roots can be divided into two broad categories: social factors and individual circumstances. Social factors are well described by foundational theories (Appadurai 2004, Ray 2006) and there is a range of evidence showing that other people such as peers, parents, and role models, as well as elements such as culture and the income distribution affect one’s aspirations (figure 3). The influence of individual circumstances, such as family resources, shocks, and opportunities, is less researched. Overall, the respective influence of social and circumstantial factors is difficult to establish empirically.

This section reviews some of these factors for which there is some evidence on their role in shaping aspirations. Subsection 5.1. lays out the theory related to the roots and subsection 5.2. describes the evidence about the social and circumstantial factors by family of outcomes. While some studies explicitly track the impact on some measures of aspirations, others simply suggest that the mechanism through which an intervention changes outcome is linked to aspirations. Annex 3 lists the measures of aspirations used by the empirical studies cited in this paper.

Figure 3. Links between aspirations and their influencing social and circumstantial factors



Source: own elaboration.

Notes: The figure aims to highlight the main links between factors shaping aspirations, intermediary factors, aspirations, and outcomes. As such, it omits other links that could exist between them for the sake of simplicity. Lighter and darker blue bubbles represent social and circumstantial factors respectively. Beliefs and mental models refer here to how much individuals think they can achieve, and they are in control of their lives. Culture refers to views of the future and social

norms. Surrounding people include parents, teachers, classmates, neighbors, etc. Family resources include among others family income and parental education. Shocks can be positive and negative; they include health issues, natural disasters, new government policies, among others.

5.1. The factors shaping aspirations in theory

Social groups shape how we think and behave. Recent essays in economics, based on insights from other social sciences, describe how the social groups we identify with—on the basis of ethnicity, religion, gender or social class—give us an identity (a story about who we are) and a culture (a set of customary beliefs, norms, and values) that influence our behaviors (Guiso, Sapienza, and Zingales 2006; Hoff and Stiglitz 2016; Demeritt and Hoff 2018). While culture is often associated with beliefs about the past, like traditions, it also includes beliefs about the future, which affect how people feel in control of their destiny and what they aspire to (Appadurai 2004; Lybbert and Wydick 2018).

The foundational essays on aspirations highlight that the lives and achievements of those we identify with make them look possible and desirable, thus making us more inclined to aspire to the same standards (Appadurai 2004; Ray 2006). According to Appadurai (2004), aspirations are born out of the set of experiences, social interactions, and opportunities that one has access to. He takes the wider experiences and aspirations of the rich compared to the poor as an illustration of this. In the same vein, Ray (2006) explains how individuals draw their aspirations from an “aspirations window”, which is determined by the broad group of individuals to which they identify according to an indefinite list of elements of identity they care about (e.g. place of living, skin color, gender, religion, country, wealth, etc.). Aspirations can be socially influenced by family and other close individuals (e.g. teachers, friends, classmates, etc.) but also from other more distant figures (e.g. celebrities, fictional characters, etc.). These individuals bring awareness of the possibilities to which one can aspire.

Besides social factors, aspirations depend on individual circumstances such as initial resources (family income and parental education), experiences, achievements, and shocks. Thus, children growing up in poverty could develop lower aspirations than wealthier peers because of lower means and limited access to relevant information to get ahead (Dalton, Ghosal, and Mani 2016). Being poor could reduce exposure to opportunities or make them feel out of reach. This in turn could cause individuals to reduce their aspirations; for example, because of not having the resources to afford a high-education program, invest in a business, or feel more secure against health and economic shocks. Moreover, aspirations shift over time as individuals achieve their goals (or fail to) and new goals are set (Dalton, Ghosal, and Mani 2016). Individuals adjust their aspirations when they realize that they can achieve

more or because they perceive that they are too ambitious.¹⁰ Unexpected shocks, such as health issues, natural disasters, a new government action, increase in demand for a type of goods one produces, etc., could similarly affect aspirations.

5.2. Empirical evidence of the factors shaping aspirations

Culture

Placing high value in the future — a cultural value — affects educational outcomes, plausibly through its influence on aspirations. In Florida, immigrant students from long-term oriented cultures (i.e. valuing thrift, careful management) perform better in third-grade reading and math, have larger test score gains over time, fewer absences and disciplinary incidents, are less likely to repeat grades, more likely to enroll in advanced high school courses, and more likely to graduate from high school in four years, even when controlling for the quality of schools and socioeconomic characteristics (Figlio et al. 2019).

Cultural factors such as social norms can be constraining and reduce aspirations, in particular for women (Giuliano 2020), and for those of low social classes in countries where social hierarchies are strong (Ray 2006). Norms affect stereotypes and can result in disadvantaged groups (such as the poor, girls, and immigrants), undervaluing their potential and underperforming when reminded about their identity. In India, where castes represent rigid and pervasive social hierarchies, reminding students of their caste reduces the ability of low-caste boys to learn and solve problems, and the willingness of high-caste boys to expend effort (Hoff and Pandey 2006, 2014). Similarly, parents tend to associate the education they aspire to for their daughters with their perceptions of the ideal age of marriage without considering the benefits from completing higher education (Maertens 2013). Another experiment in India finds that priming caste and gender reinforces boys and high-class students by raising their aspirations and expectations, while it does not lower those of girls and low castes (Mukherjee 2017). In Italy, after middle school immigrant students are systematically more likely to choose the vocational track than other tracks leading to better-paid jobs —hence reflecting systematically lower aspirations— even at equal levels of academic ability (Carlana, La Ferrara, and Pinotti 2018). In France, among students with equal test scores, those from poorer families are less likely to aspire to the top educational pathways than their advantaged classmates (Guyon and Huillery

¹⁰ Again, circumstantial and social factors are intertwined when shaping aspirations adaptation to achievements. Achievements can represent a new situation in terms of resources, for example achieving a given level of income, or in social influence because a higher status puts people in touch with people with higher status (Genicot and Ray 2020). Additionally, updating aspirations can be curbed by social expectations and norms (Favara 2017). For example, someone from a low social class in a strongly stratified society may do well but feel the grip of restrictive social norms discouraging him to aspire for more.

2021). The gap in educational aspirations between richer and poorer students is explained for the most part by poorer students underestimating their academic ability compared to richer students with equal academic abilities, likely because of stereotypes, and to a lesser extent because poorer students have a more limited awareness of educational pathways.

Inequality

As mentioned in section 4.1, in theory, aspirations interact and form in response to social mobility (perceived and actual) and inequality. In countries with high inequality, people with less income develop that sense of hopelessness because the lifestyle and outcomes of those richer than them seem too far from what they can imagine reaching. The hopelessness inspired by large inequality can be reinforced by low perceived social mobility: people with less income not only think they cannot get better but also that their children will not do better than them (Nayaran et al. 2018). Societies with high inequality are often structured around rigid social hierarchies that might hinder the formation of high aspirations among individuals in the lower parts of the income distribution, thus contributing to the perpetuation of inequality. This view is consistent with an empirical study showing that individuals from low socioeconomic backgrounds in the United States are more likely to drop out of school if they live in a place with a greater gap between the bottom and middle of the income distribution (Kearney and Levine 2016).

Moderate inequality can foster higher aspirations. In Nepal, for example, women had higher income aspirations when they knew personally other women with income levels and families with children who had achieved higher levels of education than their own children (Janzen et al. 2017). Also, studies using the minimum income level deemed adequate as a proxy for aspirations find that higher average community income increases individuals' income aspirations in Switzerland (Stutzer 2004) and in rural China (Knight and Gunatilaka 2012).

Role models

The empirical evidence shows a positive impact of role models on aspirations and on a variety of outcomes. In principle, role models inspire youth and their families to achieve more. As already discussed, in India growing up in villages with women as local leaders raised career aspirations and educational attainment of adolescent girls, and lowered their time doing household chores (Beaman et al. 2012). In Nicaragua, beneficiaries of a cash-transfer program with frequent interactions with local female leaders who also received the program were more optimistic about their future, earned more income six months later and had sustained investments in education and nutrition two years later (Macours and Vakis 2014, 2016). In France, in an awareness campaign in schools, girls who were

exposed to women with a background in science were more likely to enroll in STEM (Breda et al. 2020). Likewise, in the United States higher aspirations contributed to the higher likelihood of being an inventor for children who grew up in areas with more inventors (Bell et al. 2019).

Role models can also inspire students through video documentaries and fictions based on true stories. In rural Ethiopia, households who viewed documentaries about people from similar communities who had succeeded in agriculture or business had higher savings, credit use, school enrollment, and parental spending on their children's schooling (Bernard et al. 2014). In Uganda, students, especially girls and lower ability students, who viewed a movie featuring a girl from a poor background becoming a chess champion had better exam results a week after (Riley 2019).

Peers

Peers also influence aspirations. In El Salvador, Mexico, and Uruguay households living in slums who saw their neighbors receiving better housing conditions were more likely to aspire to upgrade their housing conditions after 16 months, than other similar households who were not exposed to the change (Galiani, Gertler, and Undurraga 2021). In rural Ethiopia, the inspirational videos of successful local small-business owners raised the investment in education not only for those who viewed the videos, but also for their friends in their village (Bernard et al. 2014).

Peers can affect aspirations in school-age children. In Brazil, having an additional friend aspiring to go to college increases the likelihood that a student will also aspire to it by 11 percent on average, and directly impacts the likelihood of attending college by decreasing the likelihood of dropping out of secondary school by 28 percent (Gagete-Miranda 2020). However, mirroring the relationship between aspirations and inequality, being confronted by high-performing peers can also hamper aspirations. In Mexico, students just above the admission threshold to a higher achievement school were more likely than students just below to report lower aspirations to attend college and higher probability to aspire to a technical rather than academic track (Fabregas 2020). Likewise, in the United States, exposure to boys with highly educated parents decreases the likelihood that girls go on to complete a bachelor's degree, reduces their math and science grades and decreases their later labor force participation and increases fertility, partly because of lower educational aspirations, expectations, and confidence (Cools, Fernández, and Patacchini 2019).

Teachers

Teachers greatly influence students' beliefs and outcomes by representing an identity, matching or not that of the students, and by possible unconscious discriminatory behavior. A series of experiments in

Italy shows that stereotypes affect grading. Teachers gave lower grades in math to immigrant and girl students compared to natives and boys of equal level of abilities, but not in humanities, which are less prone to stereotypes (Alesina et al. 2018; Carlana 2019). This led to immigrants and female students self-selecting into less demanding high schools, following the track recommendation of their teachers (Carlana, La Ferrara, and Pinotti 2018; Carlana 2019). Likewise, in China, middle-school girls who believed they had low ability in math were much less likely to perceive their current math class as difficult and to aspire to jobs dominated by women when they were assigned to female math teachers. No effect was found for English or Chinese classes (Eble and Hu 2020). In Turkey, girls who were taught for longer than a year by teachers with traditional gender views had lower performance in objective math and verbal tests, and this effect was amplified with longer exposure to the same teacher (Alan, Ertac, and Mumcu 2018). Similarly, in the United States, white teachers have been found to be more optimistic about white students' probability of finishing college relative to black students, which affects their likelihood of college completion (Gershenson et al. 2021; Papageorge, Gershenson, and Kang 2019).

Parents

Parents are subject to social norms and are a primary channel of the pervasive ideas of broad social groups to their children. They also form aspirations for their children's future, such as the age at which they are expected to leave the household and get married, and exert significant influence on their children's own aspirations. In India, 66 percent of children and parents had the same response for the education aspiration, 46 percent gave the same occupation aspiration, and 31 percent gave the same response for both the occupation and education aspiration (Ross 2019).¹¹ Parental aspirations influence the outcomes of children indirectly by affecting the aspirations of children and youth (Bandura et al. 2001), and directly through parental investments.

Shocks

Shocks due to conflicts and natural disasters can negatively affect aspirations. In Colombia, victims who experienced more severe violence from the internal conflict (displacement, combats, assassinations, etc.) became more hopeless, and had a significantly higher expectation of being extremely poor in the future compared to those less exposed to violence (Moya and Carter 2019). Thus, conflict is likely to foster hopelessness and low aspirations. In Pakistan, 18 months after the

¹¹ The discrepancy may also come from the different wording of the question about aspirations for children and parents, being "Imagine you had no constraints and could study for as long as you liked, or go back to school if you have already left. What level of formal education would you like to complete?" and "Ideally what level of formal education would you like your child to complete?"—the children's one referring to a hypothetical scenario without constraints (Favara 2017).

2010 floods, individuals who had experienced higher levels of rainfall had lower aspirations than those who had experienced average levels. The negative effect was especially strong among the poor, and among those most vulnerable to weather shocks (Kosec and Mo 2017).

Shocks leading to higher assets can positively influence aspirations, by affecting how much people are able to think ahead. In Mozambique, an agro-input subsidy and a matched savings intervention had a large and significant impact on the planning horizon of households that were not self-sufficient in maize production (Laajaj 2017). Since poor individuals with a longer time horizon tend to accumulate more assets, the betterment of their economic prospects may put them in a virtuous circle in which higher aspirations encourages the individual to take initiatives in the present in order to reach his goals.

Achievements

Data from a four-country study show that average education aspirations evolve nonlinearly during adolescence, differently across countries, suggesting that they may change according the situations faced by adolescents (Favara, Chang, and Sánchez 2018). In India and Vietnam, adolescents downgrade their aspiration to complete university between ages 12 and 15 but eventually raise again their aspirations at age 19. In Peru, which had the highest initial level of aspirations of the four countries, adolescents also reduce their aspirations between ages 12 and 15 but experience an even higher drop between ages 15 and 19. In Ethiopia, adolescents raise their aspirations slightly between ages 12 and 15 but slightly reduce them at age 19. The important changes in average aspiration levels at age 15 may be linked with the completion of secondary education—for example, Indian and Vietnamese adolescents might perceive more difficulties or start to feel higher norms for their future at that age and report aspiring to less education—to readjust their aspirations at age 19, when the possibility of attending university is more tangible.

Beliefs about oneself

A fundamental channel through which circumstances or the social environment influence individuals' aspirations is through their beliefs about themselves and their abilities. In India, the importance of young women's self-efficacy for their education and employment (i.e. their confidence about their ability to achieve goals in those fields) is largely mediated through increased aspirations: an increase in young women's self-efficacy correlates with an increase in the desire to study and an increase in the likelihood that they aspire to be engaged in paid employment outside home as an adult (Roy, Morton, and Bhattacharya 2018). In this case, knowing other successful businesswomen and feeling connected to the broader social network play important and independent roles in facilitating education and

employment outcomes among these young women. Self-efficacy correlates with experience (age, previous trainings) and an environment where girls enjoy family and social support, feel connected and have educated parents and other successful role models to look up to.

Likewise, the negative effects of teachers' stereotypes on girls' math performance and education paths in Italy cited earlier are at least partially driven by lower self-confidence in math ability (Carlana 2019). This is also the case in France, where the lower self-esteem of poorer students about their current academic ability compared to their richer classmates explains half of the gap in educational aspirations among equally-achieving classmates, compared with the quarter explained by their awareness about options (Guyon and Huillery 2021).

6. Conclusion

Building on influential theoretical foundations, the last decade has seen a flurry of empirical studies in economics concerned with the influence of aspirations —people's goals for their future— on individual behaviors and development outcomes. While it is still growing, the evidence confirms that aspirations are important correlates of economic outcomes and that researchers and policymakers should account for them when designing policies. Accounting for aspirations can enhance our understanding of complex human behaviors and micro and macro phenomena.

Empirical studies confirm what the foundational theory laid out: aspirations can be powerful motivators and higher aspirations can lead to better outcomes. Experimental studies finding a simultaneous increase in aspirations and outcomes (educational, labor market, and others) identify aspirations as a mechanism behind improved outcomes, while longitudinal studies show that aspirations correlate with better subsequent outcomes.

However, higher aspirations do not automatically translate into better outcomes; rather when they are not matched with opportunities they can result in despair and unleash dangerous frustrations that ultimately lead to worse outcomes at the individual and aggregate level.

Moreover, the social and circumstantial factors shaping them can reinforce persisting inequality. A range of experimental studies has shown that interventions led to higher aspirations and motivation towards better outcomes. However, the social environment often discourages the development of high aspirations for the poorest and underprivileged. Individuals disconnected from multiple networks and opportunities or pressured by constraining social norms and stereotypes might develop low aspirations and miss potential beneficial opportunities. Thus, for example, immigrant and poor students have on average lower educational aspirations than their wealthier peers of similar level of abilities.

Despite the coherence of the empirical evidence pointing to the importance of aspirations, it is not exempt from limitations. The evidence often relies on assumptions that albeit compelling do not guarantee causal impacts and publication bias could imply that papers finding limited or no effect of aspirations may be less likely to be published. Indeed, more work on the causal impact of aspirations on outcomes and publication of research finding no impact would be useful.

There are several areas where further empirical research is needed: (i) on the link between aspirations and aggregate outcomes such as inequality, social mobility, and economic growth, (ii) on the circumstantial roots of aspirations, especially on their interaction with social factors, and (iii) on the interplay between aspirations and opportunities.

Finally, the field would benefit from studies explicitly and clearly discussing the empirical measures of aspirations used. As this paper has shown, different measurements of aspirations across studies can have a bearing on the results and can hinder their comparability. Measuring aspirations is challenging. Being very clear about the method used (definition and questions asked) and discussing how it compares to those used in other papers is critical to build evidence to support policy design.

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Annex 1. Glossary of selected concepts related to aspirations

The literature about aspirations blends several social sciences, including anthropology, economics, psychology, and sociology. Every field brings its own jargon, making the studies sometimes cryptic. This glossary aims to ease the navigation into this literature dealing closely or more remotely with aspirations. As much as possible, we use a simple language for the definition and link it to a key contribution aligned with the definition.

Achievement motivation: a disposition to seek realistic but challenging goals through personal efforts, perseverance, and calculated risks (McClelland 1953).

Agency: the freedom to define and pursue one's most meaningful goals (Sen 1999).

Aspirations: desires for the future for various aspects of life and well-being, which drive choices and efforts (Ray 2006).

Aspiration failures: situation in which people set too high or too low aspirations compared to their situation, which demotivates or discourages them and prevents them from reaching their maximum potential (Ray 2006).

Aspiration fatalism: one type of aspiration failure in which people set aspirations that are too close to their situation, which gives low incentives to make decisions for alternative paths or make efforts to achieve more (Ray 2006).

Aspirational frustration: disappointment following a failure to reach an aspiration, likely to occur when people set too high aspirations compared to their situation, which may result in negative feelings and lower subsequent efforts (Ross 2019).

Aspirations gaps: the difference between one's aspired and current situation (Ray 2006).

Aspirations window: the set perceivably similar individuals — e.g. for their neighborhood, skin color, gender, religion, etc. — whose lives and achievements influence one's aspirations (Ray 2006).

Beliefs: how people view themselves, the world, and the link between actions and outcomes, which influence their decisions (Denzau and North 1994). They include perceptions of the future and one's control over it.

Belonging (sense of): the extent to which people feel they are accepted members of a community (Baumeister and Leary 1995).

Bounded rationality: the restricted logic of people when making decisions due to limited thinking capacities, available information, or time (Simon 1957).

Capabilities: the set of valuable opportunities that a person can choose from (e.g. being well-nourished, having shelter) (Sen 1979).

Cognitive bandwidth: the mental space to think, process problems, and come up with solutions (Mullainathan and Shafir 2013).

Cognitive skills: mental abilities for comprehension, reasoning, and learning, which are commonly referred collectively as intelligence (Neisser et al. 1996).

Cognitive biases: systematic deviations from judgments and decisions that are considered desirable or logical; may be influenced by social environment, mental models, or limited mental space. Cognitive biases are also sometimes referred to as “behavioral,” “decision-making,” and “thinking” biases. (Tversky and Kahneman 1974; World Bank 2015).¹²

Culture: A body of customary beliefs, values, and prescriptions transmitted from parents, peers, and social groups that drives facets of human interactions, such as ethnicity, ritual, heritage, norms, ethics, etc. (Rao and Walton 2004; Guiso, Sapienza, and Zingales 2006).

Discounting: the tendency to value more immediate rewards than future ones (Frederick, Loewenstein, and O’Donoghue 2002).

Expectations: perceived most likely outcomes. “Subjective expectations” refer to people’s self-reported probabilistic expectations of outcomes, such as income or education, based on surveys (Manski 2004).

Grit: Perseverance and passion for long-term goals, which entail working strenuously toward challenges, with consistency of effort and interest over years despite failure and adversity (Duckworth et al. 2007).

Growth mindset: The extent to which people believe that they can improve their abilities and intelligence through dedication and hard work (Dweck 2006).¹³

¹² Some examples of cognitive biases include: anchoring (initial exposure to an information—albeit irrelevant—acts as a reference point driving subsequent judgments), confirmation bias (tendency to automatically interpret information in ways that support prior beliefs), framing (giving greater weight to information of limited relevance when making decisions), and overconfidence (overestimating one’s judgement abilities).

¹³ People with a growth mindset believe that they can learn more or become smarter through dedication and hard work, by contrast to people with a fixed mindset, who think their basic qualities, like intelligence, are fixed and that talent alone—without effort—creates success.

External constraints: a set of barriers related to lack of resources (money, credit) and opportunities, by opposition to internal constraints related to cognitive and psychological barriers.

Hope: a positive motivational state based on having a sense of freedom to pursue one's goals and the pathways to do so (Snyder, Irving, and Anderson 1991).

Identity: person's sense of self (Akerlof and Kranton 2000). "Social identity" refers to how people derive their identity from a perceived membership in a social group (Tajfel and Turner 1979).

Internal constraints: a set of cognitive or psychological barriers influencing decision making, such as a lack of attention or willpower, depression, and short-sightedness (Boswell Dean, Schilbach, and Schofield 2018).

Locus of control: the extent to which a person believes she controls the factors that shape her life (Rotter 1966).¹⁴

Mental models: People's beliefs of the reality, influenced by the world around them, which people use to reason, make decisions, and behave (Jones et al. 2011).

Mindset: a mental attitude or inclination.

Pathways: a viable way towards desired goals (Snyder 2000).

Perseverance: Continued effort to do or achieve something despite difficulties, failure, or opposition.

Prospect theory: model describing how people decide between alternatives that involve risk and uncertainty (Kahneman and Tversky 1979).

Resilience: bouncing back from adversity, trauma, tragedy, threats, or significant sources of stress (APA 2015).

Satisficing: Decision making strategy consisting in searching through available alternatives until meeting an acceptable threshold that matches some aspirations (Simon 1957).

Self-efficacy: confidence about one's ability to successfully complete specific tasks and achieve particular goals, which determines how people approach challenges, choose activities, and invest efforts (Bandura 1977).

¹⁴ People have an internal locus of control when they believe their outcomes are the product of their own efforts; conversely, people with external locus of control believe external factors, such as fate and luck, shape their outcomes.

Social norms: society's implicit or explicit rules for what is acceptable for an individual (Bicchieri 2006).

Socioemotional skills: a set of learned attitudes and behaviors that allow people to manage personal and social situations effectively (Weissberg et al. 2015).

Stereotype threat: being at risk of confirming a negative view about one's social group (Steele 1997).

Annex 2. Concept of aspirations in selected studies

Study	Type of study	Concept
Appadurai (2004)	Essay	Wants and choices for the good life, health, and happiness resulting from one's capacity to aspire given one's social group's culture and one's situation (in terms of power, dignity, and wealth).
Ray (2006)	Essay	Multidimensional desires, derived from the achievements and ideals of seemingly similar individuals, which influence behavior according one's initial situation (can inspire, demotivate, or frustrate).
Beaman et al. (2012)	Empirical	Future-oriented multidimensional hopes, which are predictive of current behavior.
Bernard and Taffesse (2014)	Measurement	Wished targets that are future-oriented, motivating, and multidimensional.
Bernard et al. (2014)	Empirical	Desired forward-looking goals relevant to well-being, which drive effort towards realizing it.
Dalton, Ghosal, and Mani (2016)	Theoretical	Reference points jointly determined with effort that affects one's satisfaction given the realized outcomes.
Favara (2017)	Empirical	Combination of the preferences of individuals, information about the opportunities available, and the expectations formed about the feasibility of those preferences and future constraints.
Lybbert and Wydick (2018)	Review	One aspect of hope that needs to be complemented by pathways (i.e. a viable way to achieve the aspiration) and agency (i.e. the belief that can achieve his aspirations with enough effort) to motivate.
García, Harker, and Cuartas (2019)	Empirical	Hopes and goals that are rooted in idealistic preferences for the future that are partially shaped by the cultural sphere of society.
La Ferrara (2019)	Review	A hope or ambition of achieving something, which one may not necessarily expect to achieve and that is higher order than immediate and tangible goals.
Guyon and Huillery (2021)	Empirical	The goals that individuals set for themselves in the future.
Genicot and Ray (2020)	Review	Reference point generated by the ambient society, which drives individual investments and is intertwined with economic development and income distribution.

Annex 3. Survey measures of aspirations in empirical studies

Authors	Topic and country of the study	Dimensions of aspirations	Underlying concept of aspirations	Measures of aspirations
Avitabile and de Hoyos (2018)	Impact of an intervention giving information on higher-education scholarship and education returns on student performance in Mexico	Education	Wishes	One standardized index based on the following question with five response options: "What is the maximum level of education you would like to reach?"
Beaman et al. (2012)	Impact of women local leaders on aspirations and educational attainment for girls in India	<ol style="list-style-type: none"> 1. Education 2. Job 3. Age of marriage 4. Leadership potential 	Wishes	<p>Two indexes, one general aspiration index based on three questions and one leadership index based on one. The latter was singled out because it correlates much less with other aspiration dimensions and with outcomes.</p> <p>The general aspiration index is based on the following four variables:</p> <ol style="list-style-type: none"> 1. Wishing at least completed secondary school to the question "what is the highest education level that you would like to complete?" 2. Responding any occupation other than housewife or what the in-laws prefer to the question "what occupation would you like to be doing when you are 25 years old?" 3. Responding doctor, engineer, scientist, teacher or a legal occupation to the same previous question. 4. Responding at age 18 or higher to the question "at what age would you like to marry?" <p>The leadership index is based on a positive answer to the question "would you like to be the village's chief councilor?"</p>

Authors	Topic and country of the study	Dimensions of aspirations	Underlying concept of aspirations	Measures of aspirations
Bernard and Taffesse (2014)	Validation of a survey-based measure of aspirations of rural households in Ethiopia	<ol style="list-style-type: none"> 1. Education 2. Income 3. Wealth 4. Social status 	Wishes	<p>One aggregate index representing the sum of weighted standardized sub-indexes of the following four dimensions of aspirations, and weighted according to people's self-reported relative importance (with 20 beans), each based on the question "what is the level of [dimension] that you would like to achieve in your life?":</p> <ol style="list-style-type: none"> 1. Annual income 2. Durable consumer goods (monetary value) 3. Years of schooling to complete 4. Percentage of their fellow community members who would ask for their advice at times of important decisions.
Bloem et al. (2018)	Assessment of survey-based measures of aspirations and hope of households in Myanmar	<ol style="list-style-type: none"> 1. Education 2. Income 3. Agricultural landholdings 4. Remittances 5. Giving donations 	Wishes	<p>Five continuous variables, one for each of the dimensions, based on the question "How much [dimension] would you like to complete?"</p> <p>(1) is educational attainment expressed in years of schooling, (2) is the monthly income in local currency, (3) is in acres, and (4) and (5) are in the local currency.</p>
Carlana, La Ferrara, and Pinotti (2018)	Impact of a counselling intervention on the school choices of high-performing immigrant adolescent students in Italy	Education and job	Perceivably feasible wishes	<p>One index from a factor analysis of the following answers to the following two questions:</p> <ol style="list-style-type: none"> 1. Answering "Enroll in university" among four options to the question "Thinking about your future education-wise, what objectives do you intend to achieve?" 2. Answering positively to the questions "Independently from your educational aim but thinking about your abilities, do you think you could get a...("university degree"/"white collar job"/"managerial job")?"
Chiapa, Garrido, and Prina (2012)	Impacts of a conditional cash transfer program on parents' educational aspirations for their children in Mexico	Education	Wishes	<p>One categorical variable based on the coding in years of education of the responses in levels to the question "Up to what level would you like your [child] to study?"</p>

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Dalton, Rüschenpöhler, and Zia (2018)	The determinants and dynamics of business aspirations of small-scale retailers in Indonesia	Business	Wishes and expectations	<p>Fourteen continuous indexes based on the aspired value and the aspiration gap (the difference between the aspired value and the current value, normalized by the current value) of the following four dimensions, each for the short term (next year) and the long-term (open-ended):</p> <ol style="list-style-type: none"> 1. Business size (square meters) 2. Number of employees 3. Number of customers 4. Daily sales (USD PPP) (only for short term) <p>Short-term indexes draw upon the questions "Please imagine your business a year from now. How large do you imagine your business premises to be? How many people will work there? How many customers will come by on a normal day? What are the daily sales you aspire to have?"</p> <p>Long-term indexes draw upon the questions "Please imagine your ideal business. How large is your shop? How many people work there? How many customers come by on a normal day?"</p> <p>3 additional indexes measure aspirations horizon (from the question "how many years do you think it will take for you to achieve your ideal business?"), imagination failure (dummy equal to 1 if the entrepreneur has never imagined an ideal business), and planning failure (dummy equal to 1 if entrepreneurs cannot estimate their aspirations horizon).</p>
Del Carpio and Guadalupe (2018)	Impact of a campaign and network program on the probability of women to apply to a software-coding training in Mexico and Peru	Conformation to traditional gender roles	Expectations	<p>One index representing the average of the following three questions coded, each with the three option choices "No" (1), "Maybe" (2), and "Yes" (3):</p> <p>"If you think about yourself 10 years from now, will you be:</p> <ul style="list-style-type: none"> - married? - with children? - in charge of household duties?"

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Dhar, Jain, and Jayachandran (2020)	Impact of a program of classroom discussions about gender stereotypes on beliefs, behaviors, and aspirations of young adolescents in India	Education and job	Wishes, wishes without constraints, and social norms	One normalized index based on responses to the following eight questions: 1. "How many marks, according to you, will you score in the [...] board examinations? 2. Have you ever discussed your education goals with your parents or adult relatives? 3. Suppose you were to get married right after school, would you want to continue your education after marriage? 4. What is the highest level of education you would like to complete if finances and opportunity the school/college are available? 5. What occupation do you expect to have when you are 25 years old? 6. Do you plan to go to college/pursue a vocational course/professional course/join civil services or army? 7. What course would you like to pursue for higher studies? 8. I would like to have a job outside the home that I continue to pursue when I am married and have children."
Fabregas (2020)	Impact of attending better schools on aspirations of marginally admitted students in Mexico	Education	Wishes	One index combining the following responses: 1. Stated aspiration to attend a college or post-graduate degree to the question with five response options: "What is the maximum level of education you would like to reach?" 2. The share of vocational or technical schools the student actually chooses in the high school application form (among academic, technical, and vocational schools).
Gagete-Miranda (2020)	Peers' influence on aspirations formation of students in Brazil	Education	Wishes without constraints	One dummy variable positive when responding aiming to college to the question "How many years would you like to study if this choice were entirely up to you?"
Galiani, Gertler, and Undurraga (2021)	Impact of a slum-housing intervention on the aspirations of non-beneficiary neighbors in El Salvador, Mexico, and Uruguay	Housing	Choice	Four dummy variables based on positive answers to response options of the following question: "Right now, if you had to choose among the following alternatives of housing and location, what would you choose?" 1. Continue living in the same slum under the same conditions 2. Continue living in the same slum but get improved housing and your own land 3. Move to another slum 4. Move and get improved housing and your own land outside of a slum

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García, Harker, and Cuartas (2019)	Short-term impacts of a conditional cash transfer program on educational aspirations of poor children in Colombia	Education	Wishes	One 3-category variable based on the question "Which educational level would you like to attain?" 1. Elementary education 2. Secondary education 3. Higher education"
Garcia, Lensink, and Voors (2020)	Impact of a microfinance program on aspirational hope of women in Sierra Leone	General life aspirations	Wishes	Two categorical variables, one of absolute aspirations and one of aspirations gap (difference between aspired and current level), based on the self-reported aspired life on a scale of 1 to 10 from an image.
Green et al. (2018)	Link between private schooling, aspirations in adolescence, and mid-career earnings in Great Britain	Job	Preferences and wishes	Two indexes: (i) Job quality aspirations index based on the aspired job matched with an index of adolescents' valuation of aspects of high-quality occupations from factor analysis. (ii) Dummy variable of aspiring for a high-status occupations if students answered wishing to follow a "professional [career] (needing a degree)" or a career in "Managing/Nursing/Teaching", and that respondents stated that they intended to pursue their studies after age 16.

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Guyon and Huillery (2021)	Assessment of the biases of poor adolescent students when forming their aspirations and link between students' aspirations and their schooling outcomes in France	Education and job	Perceivably feasible wishes	<p>Two indexes:</p> <ol style="list-style-type: none"> 1. Educational attainment: 5-category variable reflecting the most-ambitious option that the student mentioned in his preferred options among the list of options for high school and higher education (level and track) he mentioned knowing and feels academically capable of pursuing: 0. Vocational high school and no higher education 1. Vocational high school and some higher education 2. Academic high school and no higher education 3. Academic high school and no stated preference for higher education 4. Academic high school and 1-4 years of college 5. Academic high school and graduate school <p>The index is based on responses to the following third question, drawing upon the two preceding it:</p> <ol style="list-style-type: none"> 1. Salient options (open question): "Which educational tracks exist after junior high school? List all tracks and degrees that you know after junior high school (not only those that you are considering)." 2. Perceivably attainable options: "Among these educational tracks that you are aware of, which ones would you feel academically capable of pursuing next year?" 3. Preferred options: "At the moment, among these educational tracks that you feel academically capable of pursuing, which one would you prefer to pursue next year?" <p>2. Job aspirations. Three-category variable based on the required education for the most ambitious preferred job from the question "which job(s) they would like to do in the future": don't require any higher education (0), 1-4 years of college (1), and graduate school (2).</p>

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Janzen et al. (2017)	Link between mothers' aspirations and education investments and between social groups and mothers' aspirations in Nepal	Income and children's education	Expectations and wishes	For income, a continuous variable with the response to the question "What level of yearly income do you personally think you might be able to achieve in the future?". For children's education, a categorical variable with the equivalent in years of education from the question "What level of education would you like your children to achieve?"
Kosec and Mo (2017)	How a season of extreme rainfall affected aspirations and how a government cash transfer program mitigated it for rural households in Pakistan	<ol style="list-style-type: none"> 1. Education 2. Income 3. Wealth 4. Social status 	Wishes	<p>One aggregate index representing the weighted sum of four indexes, one for each dimension, standardized at the village level, and weighted according to people's self-reported relative importance (with 20 beans). The following four dimension are based on the question "what is the level of [dimension] that you would like to achieve in your life?"</p> <ol style="list-style-type: none"> 1. Educational attainment (expressed in years of schooling) 2. Income 3. Assets value 4. 10-step ladder of social status
Maertens (2013)	Link between parents' aspirations for their daughters and their perceived ideal age of marriage	Education	Wishes	Two indexes of minimum and maximum aspired education, in years, based on the responses to the following questions, respectively: "What is the minimum amount of education you want this particular child to obtain?" and "What is the maximum amount of education you would allow this particular child to complete?"
Mukherjee (2017)	How identity primes affects aspirations of adolescent students in India	<ol style="list-style-type: none"> 1. Education 2. Income 3. Job 4. Living areas 	Wishes	<p>One z-score index based on the sub-indexes of the following four dimensions of aspirations, each based on the question "what is your aspiration for the level of [dimension] you will attain - that is, what level of [dimension] do you aspire to complete?":</p> <ol style="list-style-type: none"> 1. Level of education (translated in years of schooling) 2. Monthly income at age 35 3. Occupation (dummy of high versus low-skilled) 4. Living in an urban area (dummy of living in a city versus a village)

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Rizzica (2020)	Impact of an outreach intervention on aspirations of adolescent students in the United Kingdom	Education	Expectations	One dummy variable on the perceived likelihood to apply to college, based on the four response options to the question "How likely it is that you will apply to college?" 0. Not at all likely / Not very likely 1. Fairly likely / Very likely
Rojas, Lybbert, and Wydick (2021)	Impact of a microfinance program with a hope curriculum on aspirations and business outcomes of women in Mexico	Personal and business affairs	Beliefs about goals and aspirations	One index, a weighted average of five variables based on their covariance, drawing from the degree of agreement to the following five 10-point Likert-scale statements: 1. "It is better to accept things as they come rather than dreaming for a better future" 2. "It is better to have aspirations for your family rather than accepting each day as it comes" 3. "I am very satisfied with the sales and profit from my business" 4. "When you have a business it is important to set goals" 5. "I have goals and specific plans for my business growing."
Ross et al. (2021)	Impact of a child sponsorship program on aspirations and educational outcomes of children in Kenya, Indonesia, and Mexico	Education and job	Hopes and expectations	One index based on multiple questions on hopes for adult occupation and the future, expectations for adult occupation, and expected educational attainment.
Roy, Morton, and Bhattacharya (2018)	Link between self-efficacy and mental health and aspirations and outcomes of young women in India	Education and job	Wishes and wishes without constraints	Two indexes: 1. Educational attainment. Number of years of aspired studies from the question "how many years of education would you like to complete assuming no constraints" 2. Having a paid job. Dummy if the person is interested in engage in paid work outside home from the question "would like to have a paid job 5 to 10 years from now? What kind?"

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Stutzer (2004)	Link between income aspirations and happiness of households in Switzerland	Income	Sufficient needs	<p>Two continuous variables based on the following questions:</p> <ol style="list-style-type: none"> 1. Sufficient income: "What income would you indicate as good or bad in your circumstances? Please try to state what income per month (before taxes) for your entire household you consider to be [...] sufficient." 2. Minimum income: "What household income per month would you consider an absolute minimum in order to make ends meet and without running into debt even if you reduce your needs to a minimum? We do not only mean housekeeping allowance but all essentials, including insurance, taxes and so on"
Young Lives longitudinal surveys (Pasquier-Doumer and Risso Brandon 2015; Favara 2017; Favara and Sanchez 2017; Ross 2019)	Link between aspirations in adolescence and later outcomes and differences in aspirations across subgroups in Ethiopia, India, Peru, and Vietnam	Education	Wishes without constraints	One dummy variable equal to 1 for children aspiring to university based on the question "Imagine you had no constraints and could study for as long as you liked, or go back to school if you have already left. What level of formal education would you like to complete?"