

<b>Institution:</b> Queen Mary University of London		
<b>Unit of Assessment:</b> 16 Economics and Econometrics		
<b>Title of case study:</b> Shaping Policy for Early Human Capital Development in Latin America		
<b>Period when the underpinning research was undertaken:</b> 2003-2016		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b> Marco Manacorda	<b>Role(s) (e.g. job title):</b> Professor of Economics and Public Policy	<b>Period(s) employed:</b> Sept 2000–Present
<b>Period when the impact occurred:</b> 2015-2019		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of Impact</b>		
<p>Professor Manacorda's research on the determinants of early human capital development in Latin America has contributed to policy reforms for early childhood development across a variety of countries. It provided key evidence for the reform of the grade promotion system in Uruguay in 2019; directly influenced the Argentinean government's decision to embark on a major expansion of the pre-school system between 2016 and 2019; and shaped strategies, views, and recommendations to client countries and operations of the inter-American Development Bank (IADB) in the area of early child development between 2015 and 2018. Overall, his research has demonstrated the importance of early life interventions to policymakers leading to increased investment and additional resources to support early childhood development.</p>		
<b>2. Underpinning research</b>		
<p>Manacorda has produced an influential body of original research on the determinants of schooling and health inequalities and the consequences of early years shocks for subsequent economic and health outcomes in Latin America. This body of work has shed light on the origins of early human capital formation, namely the accumulation of health and education assets that are thought to enhance workers' productivity. It has also contributed to an understanding of mechanisms of impact, including the interaction between socio-economic and biological factors, and effective policy interventions. In particular, his research has shown that:</p> <ol style="list-style-type: none"> <li>1. Based on evidence from students in secondary schools in Uruguay, the widespread practice of grade retention, i.e. requiring students to repeat a grade if performing below given standards, is harmful to students as it substantially increases dropout rates, lowers academic attainment, and lowers school completion rates. Although grade retention may incentivize effort, its costs are high, especially for those from deprived socio-economic backgrounds and when enforcement of compulsory schooling laws is poor [3.1].</li> <li>2. Further evidence from Uruguay demonstrated that early life interventions in the form of pre-schooling offset the risk of grade retention later, and, in turn, increase school completion rates and educational attainment. The intervention is effective because early school exposure increases accumulation of non-cognitive skills, which are key to later academic success. A cost-benefit analysis shows considerable gains from this policy intervention relative to its costs [3.2].</li> <li>3. Early child outcomes, and in particular the incidence of low birth weight, have long been identified as important determinants of economic and health outcomes later in life. Based on data for Brazil, Manacorda's research has shown that these are significantly affected by adverse shocks during gestation. In particular, exposure to violence during the first trimester of pregnancy, which is endemic in many low and middle-income countries, leads to shorter gestational length and lower birthweight. Higher parental socio-economic status and better financial resources are found to be effective in offsetting the impacts of these shocks [3.3].</li> </ol>		
<b>3. References to the research</b>		

[3.1] Manacorda, M. (2012). The cost of grade retention. *Review of Economics and Statistics*, 94(2), 596-606. [doi.org/10.1162/REST\\_a\\_00165](https://doi.org/10.1162/REST_a_00165)

[3.2] Berlinski, S., Galiani, S., & Manacorda, M. (2008). Giving children a better start: Preschool attendance and school-age profiles. *Journal of public Economics*, 92(5-6), 1416-1440. [doi.org/10.1016/j.jpubeco.2007.10.007](https://doi.org/10.1016/j.jpubeco.2007.10.007)

[3.3] Koppensteiner, M. F., & Manacorda, M. (2016). Violence and birth outcomes: Evidence from homicides in Brazil. *Journal of Development Economics*, 119, 16-33. [doi.org/10.1016/j.jdeveco.2015.11.003](https://doi.org/10.1016/j.jdeveco.2015.11.003)

#### 4. Details of the impact

Latin America has historically suffered from low worker productivity, especially among low socio-economic-status workers. This has led in recent decades to greater long-term investment in health, education and new policy instruments, with a particular focus on early child development (ECD). Manacorda's research significantly contributed to the scientific evidence that underpins educational reforms in Latin America, particularly in Uruguay and Argentina. His findings that early investment is particularly effective (as human capital is more malleable at earlier than at later ages), relatively low-cost and leads to returns over an individual's entire life cycle, has had a far-reaching influence in shaping policy and public debate. In particular, findings from Manacorda's research:

##### **Influenced the reform of the grade promotion system in secondary schools in Uruguay in 2019**

Uruguay has traditionally displayed high rates of grade retention in secondary schools. This has led to a lively policy debate among education practitioners and policy makers over the causes of this phenomenon, its consequences and ways to alleviate it. In recognition of the negative consequences of this practice, the Uruguayan National Administration of Public Teaching (ANEP) proactively engaged in a reform of the system in 2019. The reform entailed a gradual shift away from the practice of grade retention, whose application was henceforth limited to exceptional cases. The ANEP Director of Research, Evaluation and Statistics stated that evidence of adverse causal effects of retention on students' future educational trajectories from [3.1] weighed considerably in favour of the reform:

'[Manacorda's research, [3.1] was the first paper in the literature that, focusing specifically on the Uruguayan case, showed incontrovertible, transparent and replicable empirical evidence on the negative causal consequences of grade retention of students' outcomes and learning trajectories. This evidence significantly contributed to [...] the debate about the functioning of the school system in Uruguay and the ensuing legislative reform. After a huge debate about the pedagogical value of grade repetition in Secondary School, the Resolution of the Central Council of Public Education (CODICEN) Act 75, Resolution 30 of December 2019, set the conditions to revise the criteria of grade promotion in Secondary education [...] although we cannot yet claim causality, attendance rates in secondary school have risen significantly, despite the incorporation of marginal students from low socio-economic backgrounds, i.e. the ones of higher risk of drop out' [5.1].

##### **Informed the Argentinean government's decision to embark on a major expansion of the pre-school system between 2016 and 2019**

Manacorda's research [3.2] directly affected the Argentinean government's pre-school expansion policy implemented between 2016 and 2019. His finding of a highly positive balance of benefits in terms of subsequent educational attainment relative to costs was one of the key pieces of evidence that supported the reform. The former Undersecretary of State in charge of the reform stated that the research [3.2]:

'[w]as particularly relevant in the discussion within the Administration wishing to balance the aim of long-term investment in human capital with the existing financial constraints and was one of the key pieces of research affecting the decision to adopt a pre-school expansion policy. Ultimately and as a result of the policy between 2016 and 2019 around 235 new early childhood spaces were built while others were refurbished. This provided additional capacity for around 119,000 children' [5.2].

### **Shaped strategies, views and recommendations to client countries and operations of the Inter-American Development Bank on early child development in the region between 2015 and 2018.**

Beyond national policy making, Manacorda's research had a multifaceted impact on Inter-American Development Bank (IADB) strategies, recommendations and policies. The IADB is the main multilateral financing body in Latin America and one of its three focus areas is social inclusion.

Manacorda's research on ECD [3.2] fed into the organization's strategies, featuring in the 2016 Education and Early Childhood Development Sector Framework Document [5.3] and the 2018 IADB flagship publication Development in the Americas (DIA), which noted that 'Interventions, such as pre-primary schooling in Uruguay have a high [...] rate of return at 16 percent (Berlinski, Galiani, and Manacorda, 2008)' [5.4, p.83].

IADB operations financing the expansion and improvements in quality of preschools, and high-level organizational recommendations were predicated on those findings. In the words of the Principal Economic Adviser at the IADB:

'It took very high-quality research like that carried out by Professor Manacorda to show that there can be high returns to early investments. I can personally attest to the importance of Manacorda's research in the discussions we had with senior authorities in the government of [Guatemala and Peru], including with the Ministries of Finance that ultimately decide what to invest in' [5.5].

In 2015 the Government of Guatemala signed a loan of USD150,000,000 with the IADB aimed at the improvement of the pre-primary and primary school systems (Programa Para el Mejoramiento de la Cobertura y Calidad Educativa).

Manacorda's research [3.3] led the IADB to make policy recommendations to client countries on preventive measures against violence to the benefit of children and new-borns. According to the Chief of Social Protection and Health Division at the IADB, with reference to [3.3]:

'What made this research particularly relevant from the perspective of policy was that it highlighted a yet undocumented link between violence and health outcomes. This [...] has contributed to generating an important discussion with many of our counterparts regarding preventive measures of violence for children's health at birth and subsequent physical and cognitive development [...] these discussions have led to adjustments in the design of parenting interventions' [5.6].

In summary, between 2015 and 2019, Manacorda's research on the determinants and consequences of early life human capital accumulation have underpinned the design of schooling policies and preventive measures against violence to the benefit of children. This has had a far-reaching impact on policymakers, educational practitioners and students across countries in Latin America.

### **5. Sources to corroborate the impact**

[5.1] [Testimonial] Director of the Research, Evaluation and Statistics at the Uruguayan National Administration of Public Teaching (ANEP). [Corroborator 1]

[5.2] [Testimonial] Former Sub-secretary of State of the Argentine Republic, Coordinator strategic Management, Cabinet office, Presidency (2015-2017).

[5.3] [Report] Inter-American Development Bank, Education and Early Childhood Development Sector Framework Document, Education Division, June 2016, Washington DC.

[5.4] [Report] Inter-American Development Bank, Development in Americas (DIA) 2018 IDB Flagship Publication: Better Spending for Better Lives. How Latin America and the Caribbean Can Do More with Less, Washington DC, 2018.

[5.5] [Testimonial] Principal Economic Adviser, Inter-American Development Bank, Washington DC. [Corroborator 2]

[5.6] [Testimonial] Social Protection and Health Division Chief, Inter-American Development Bank, Washington DC.