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November 24, 2014

Re: Recommendation Letter for Jamie McCasland

Dear Colleague,

I write this letter to enthusiastically recommend Jamie McCasland for consideration for a position in your department. I believe she has all the attributes needed to be extremely successful in the profession, as evidenced by the quality of her job market paper and other research projects that she is currently engaged in.

I have known Jamie since January 2009 when she worked with me (and other researchers including Edward Miguel and Michael Kremer) as a research assistant on a large research project on youth employment in Kenya. She was instrumental in helping launch this project and even as a research assistant (prior to graduate school), Jamie demonstrated the ability to manage large complex projects and also provided critical input into the research design. I remember being struck by her intellectual curiosity and her enthusiasm to use research to better understand the process of economic development. In the fall of 2011, Jamie and I started to work closely together to design a large, nation-wide evaluation of a youth apprenticeship program in Ghana which launched in the fall of 2012. Jamie was an equal collaborator in every phase of the project. She contributed to the research design, survey development, logistics, human resource management, and helped resolve the numerous issues that came up during the launch of the project. Her job market paper builds on this larger evaluation and focuses on firm level outcomes such as profits and number of workers, using firms that were recruited to provide training to the apprentices in the larger study. Jamie led the conceptualization, development and execution of her job market paper, while I provided minimal advice to align her study with the larger project. Her job market paper is coauthored with Morgan Hardy, a graduate student at Brown University who is also a collaborator on the larger apprenticeship project. However, Jamie is the lead author of this paper, as she developed and designed the project. Thus, you should consider this paper as true reflection of Jamie's ability to execute a complex research project in a very challenging environment.

Even though small firms are ubiquitous in developing countries, a growing body of research has documented that these firms rarely grow. Jamie's research highlights the importance of labor market frictions in constraining firm growth. In particular, firms are reluctant to hire workers due to the large search costs which are driven by asymmetric information, where firms cannot observe (or predict) worker productivity. Jamie explores this issue in the context of the labor market for apprentices in Ghana, where most workers in small firms are actually apprentices. As part of the larger evaluation, firms were recruited to provide participating youth with apprenticeship training. Due to the excess demand for apprentices by firms Jamie saw an opportunity design this research project using a novel design, which essentially (randomly) provided recruitment services to firms. Her design uses a lottery procedure similar to those used

in school choice lotteries in Chicago and Charlotte school districts. However, in this case Jamie had to design and implement this complex system from the ground up, which was especially challenging given the nation-wide scale of the project, and all the partners and stakeholders involved. In each of the 32 districts involved in the project, prospective apprentices were asked to provide a list of firms that they were able to travel to and were willing to train with. If prospective apprentices listed multiple firms, they were randomly placed in one of the firms they had listed. Thus conditional on fixed effects that control for prospective apprentice choices and ensure that she is comparing firms in the same "risk set", some firms were randomly chosen to receive apprentices (the treatment group) and the remaining firms did not receive any apprentices (the control group). Jamie shows that this novel randomization is balanced with sufficient takeup such that it positively and significantly affects the employment levels of treatment firms relative to control firms (measured by number of workers). Her intent to treat estimates show that number of workers increased by about 10% in firms that were offered an apprentice compared to those that were not offered anything. In addition, she finds that relative to control firms, profits in treatment firms increase by 11% (intent to treat estimate) and 18% (local average treatment effect). What is truly remarkable and exciting is that Jamie finds that the profit effects are much larger for firms who receive "high cognitive ability" apprentices (measured by a various measures such as Raven's tests and memory tests) compared to firms that receive "lower ability" apprentices. In contrast, she finds no such pattern using observable measures of worker quality such as education level. It is important to note that the measures of cognitive ability that she uses are not typically observed by employers and are likely learned over time. This result highlights the challenges that firms face in hiring workers in the presence of asymmetric information, where observable characteristics such as education do not adequately signal worker ability. Taken together, the evidence is consistent with a model that Jamie and Morgan develop, where employers face high search costs and the intervention can be viewed as providing a type of screening mechanism for firms, where only committed and interested prospective apprentices are willing to attend several meetings and fill out a number of forms in order to participate. This is an important finding as it suggests that policies that can reduce screening costs (for example through recruitment services) could be extremely cost-effective in reducing the search frictions that hinder firm growth, whereas wage subsidies would be less cost-effective in such settings. The model can also help us understand why previous studies have found minimal impacts of wage subsidies on firm growth in developing countries.

Jamie is extremely diligent, conscientious and thoughtful in her application of theory to inform her empirical research. The design of her project was complex and not trivial to implement and execute, especially in this setting where she had to navigate relationships with trade associations and government officials in multiple districts. This took an extraordinary level effort, commitment and attention to detail in order to ensure that the project was successfully implemented. She is without a doubt the most talented graduate student I have worked with, and I look forward to our continued research collaboration. She has been a pleasure to work with and I expect her to make great contributions to our understanding of firms and labor markets in Sub-Saharan Africa. Overall, Jamie would be a great colleague and I highly recommend her for positions in top economics departments, policy schools and also business schools.

Please contact me if you require additional information or would like to further discuss Jamie's candidacy and qualifications.

Sincerely,

Isaac M. Mbiti