# William Walker Hanlon

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## November 15, 2011

## **Education:**

Ph.D.	Economics	Columbia University	2012 (expected)
M.Phil	. Economics	Columbia University	2009
M.A.	Economics	Columbia University	2008
B.A.	Economics	Stanford University	2004

#### Research fields:

Primary: International Trade, Development, Economic History Secondary: Innovation and Growth, Economic Geography

**Job market paper:** "Necessity is the Mother of Invention: Input Supplies and Directed Technical Change"

The leading theory of directed technical change, developed by Acemoglu (2002), offers two main predictions. First, when inputs are sufficiently substitutable, a change in relative input supplies will generate technical change directed towards the inputs which become more abundant. Second, if technical change is strongly directed towards the more abundant inputs, the relative price of these inputs will increase – the strong induced-bias hypothesis. This paper provides the first empirical test of these predictions using a large exogenous shock to the cotton textile industry in 19th century Britain caused by the U.S. Civil War (1861-1865). I extend the theory to a setting in which input quantities are endogenous and affected by international transport cost shocks, such as that caused by the war. Using detailed new patent data, I show that there was a burst of cotton textile innovation in Britain during the war directed towards taking advantage of one input – Indian cotton – which became relatively more abundant. Next, I show that the relative price of Indian cotton first declined and then rebounded, consistent with the strong induced-bias hypothesis. These results provide support for the theory. My extended model also predicts that technical change directed towards the more abundant input will be magnified by a higher elasticity of input supply. This may explain why inventors chose to focus on innovations for Indian cotton, rather than Brazilian or Egyptian cotton, since I find evidence that the elasticity of supply was higher for Indian cotton.

## **Working papers:**

#### Awards:

Wueller Pre-dissertation Award for best proposal by a 4 <sup>th</sup> year student	December 2009
Columbia University Economics Department	
Vickery Award for best paper by a 3 <sup>rd</sup> year student	July 2009
Columbia University Economics Department	
Wueller Award (runner-up) for best research proposal by a 3 <sup>rd</sup> year student	January 2009
Columbia University Economics Department	
Sobieski Honors Thesis Award for Creative Thinking in Economics	June 2004
Stanford Economics Department	

<sup>&</sup>quot;Industry Connections and the Geographic Location of Economic Activity"

<sup>&</sup>quot;A Theory of Leadership Selection in Small Groups – With Evidence from Ugandan Farmer Associations" -with Guy Grossman

Research grants: Columbia University CIBER Research Grant Economic History Association Exploratory Data and Travel Grant NSF Dissertation Improvement Grant	2011 2010 2010-2011
Fellowships: Kauffman Dissertation Fellowship Economic History Association Graduate Dissertation Fellowship AMID Fellowship, London School of Economics Mellon Graduate Fellowship Columbia Institute of Latin American Studies Travel Fellowship National Science Foundation IGERT fellowship Columbia University Faculty Fellowship	2011-2012 2011-2012 Spring 2011 2009-2011 Summer 2009 2007-2009 2006-2007
Presentations (completed and scheduled):  "Necessity is the Mother of Invention"  Sciences Po lunch seminar  LSE Economic Organization and Public Policy Work-in-Progress Seminar  LSE Economic History Seminar	Sept. 2011 June 2011 June 2011
"Industry Connections"  Urban Economics Association Annual Conference Economic History Association Annual Conference MOOD Conference, EIEF Rome LSE Spatial Economics Research Center Conference Royal Economic Society Annual Meeting Brooks World Poverty Center, Manchester Graduate Summer School	November 2011 September 2011 July 2011 May 2011 April 2011 June 2010
"A Theory of Leadership Selection"  Paris School of Economics  NEUDC Annual Conference	January 2011 November 2010
Experience: Intern, United Nations ECLAC, Mexico City Office Research Assistant, Prof. Eric Verhoogen Economic Consultant, Bates White, LLC Intern, World Bank, Bangkok, Thailand Office Research Assistant, Prof. Bruce Blonigen, University of Oregon	Summer 2009 Summer 2008 2004 - 2006 Summer 2003 2001- 2002
<b>Teaching:</b> Teaching Assistant – International Trade, Columbia University	Fall 2011
for Prof. Ron Findlay Instructor – STATA short course for Economics Honors students, Columbia University Teaching Assistant – Globalization, Incomes, and Inequality, Columbia University for Prof. Donald Davis	Spring 2010 Spring 2010
Teaching Assistant – Manchester Graduate Summer School, Manchester University for Prof. Joseph Stiglitz and Prof. Akbar Noman	Summer 2009
Teaching Assistant – Columbia University School of International and Public Affairs for Prof. Jose Antonio Ocampo  Teaching Assistant – Manchester Graduate Summer School, Manchester University for Prof. Joseph Stiglitz and Prof. Akbar Noman	Spring 2009 Summer 2008

## **Professional activities:**

Referee – Journal of Development Economics

## **References:**

Donald Davis (Co-chair) Department of Economics Columbia University drd28@columbia.edu (212) 854-4037

Suresh Naidu Department of Economics Columbia University sn2430@columbia.edu (212) 854-3213 Eric Verhoogen (Co-chair) Department of Economics Columbia University ev2124@columbia.edu (212) 854-4428

Ronald Findlay Department of Economics Columbia University ref2@columbia.edu (212) 854-3674