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**Current Employment:**

Lecturer in Economics at Birkbeck, University of London, 2015 –

**Education:**

PhD Economics, European University Institute, 2010 to 2015  
MSc Economics, Edinburgh University; 2008-09  
BSc Economics, St Andrews University; 2001-05

***Academic references:***

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**Teaching and Research Fields:**

Primary fields: Health and Labour Economics  
Secondary fields: Economics of Education and Migration

**Professional Activities:**

Presented Paper: Royal Economic Society Conference, Manchester 2014  
Presented Paper: Royal Economic Society Conference, Brighton 2016

**In the media**

Newspaper article The Telegraph, 23<sup>rd</sup> March 2016

## **Papers close to submission**

### *“Fetal Exposure to Air Pollution and Long-Term Health: Evidence from the Great London Smog”*

This paper provides new evidence on the consequences of foetal exposure to pollution for the risk of stillbirth, and for the long-term health and labour market outcomes of those that survive. Variation in *in utero* exposure comes from a persistent weather system that affected London for five days in December 1952, preventing the dispersion of atmospheric pollution. This increased levels of total suspended particulate matter by around 300%. Unaffected counties in England are used in a differences-in-differences design to identify the short and long-term effects.

Historical registrar data for the nine months following the smog show a 2% increase in reported stillbirths in London relative to national trends. As foetal deaths often go unreported, the exercise is then repeated for registered births. The data show around 400 fewer live births than expected in London, or a reduction of 3% against national trends. Survivors are then identified by district and quarter of birth, and their health and labour market outcomes observed at fifty and sixty years old. Differences-in-differences estimates show that survivors are in general less healthy, less likely to have a formal qualification, and less likely to be employed than those unaffected by the smog.

### *“Subject Choice and the Price of Education”*

Although attending university is often an excellent investment, the outcomes for individual students can vary widely. A student graduating in 2011 with a degree in communications had an 11% chance of being unemployed one year after graduation. The equivalent figure for a student with a degree in nursing is 4%. This paper examines the effect of university tuition on the subjects that students study. Variation in the price of tertiary education comes from a policy change in which tuition payable by students in England and Wales increased forty percent from £1,200 a year to £3,000 a year. A propensity matching methodology is used to control for sample selection caused by reduced university participation following the increase in fees. Results indicate that the 2006 increase in fees caused a five percent reduction in the probability that a given student would study a STEM subject. Course level data from the Higher Education Statistics Agency suggests that the subjects most affected were nursing, pharmacology, and medical technology.

## **Research in progress**

### *“Scarring and culling effects from foetal exposure to pollution”*

It is more healthy children that survive foetal exposures to pollution – causing an upward bias in the health of those observed in later life, and obscuring the true health effects of exposure. This ‘culling’ effect is likely to be particularly important in middle- and low-income countries, where the effect of exposure on stillbirths can be extreme, but there is no evidence to date on the size of this effect. Using information on fifty years of birthweight data, linked to an extensive network of pollution meter data, this paper estimates the effects of foetal exposure on stillbirths, the effects on continuing health, and the extent that current estimates of foetal exposures underestimate the true effect.

### *“Hiring Motivated Teachers: The Effects of Entry Wages on Teacher Retention”*

Teacher dropout is costly for school administrators and students alike: value-added measures of teacher quality have found that teachers are particularly ineffective in their first three years, affecting student

outcomes both in the short and long terms. This paper studies the effects of entry wages on teacher retention using variation from a policy change that increased the relative wages of British teachers by 30% on average. Evidence from the UK Labour Force Survey indicates that those hired when teaching was relatively well paid were both more likely to drop out of teaching when relative wages drop, and work fewer hours when employed.

*“Pollution exposure and serious accidents”* – joint with Nico Pestel and Arnaud Chevalier

People living in cities breathe atmospheric pollutants as a necessary and unavoidable part of their working lives, and the effects on health and mental acuity can be fast-acting and serious. In the workforce – and especially in transportation, health, and construction - even momentary lapses of concentration can have serious consequences in the workforce. However, there is no evidence to date that could guide policy on the importance of this channel. This paper studies the effects of contemporaneous exposures on serious and fatal workplace accidents, using twenty years of administrative data from the UK, and information on daily exposures.

*“The effects of emigration on crime”* – joint with Elie Murard

Crime is often a response to an absence of opportunity - and it is a lack of opportunity that emigrants often hope to escape. This paper aims to test whether the removal of barriers can cure crime with opportunity. Identification of the effect of emigration opportunities comes from the sudden removal of border controls for new EU states in 2004, linked to administrative data on crimes throughout Poland. (Very) preliminary results suggest that emigration per person led to a marked reduction in crime at source. In the context of a literature showing that Polish immigrants were less likely than locals to commit crimes, it appears that the removal of barriers resulted in a reduction in crime both at source and destination.