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## The health care costs of childhood obesity in Australia: An instrumental variables approach

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Source Economics and Human Biology, September 2018, v. 31, pp. 1-13

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Abstract The effect of childhood obesity on medical costs incurred by the Australian Government is estimated using five waves of panel data from the Longitudinal Study of Australian Children, which is linked to public health insurance administrative records from Medicare Australia. Instrumental variables estimators are used to address concerns about measurement error and selection bias. The additional annual medical costs due to overweight and obesity among 6 to 13 year olds is about $43 million (in 2015 AUD). This is driven by a higher utilisation of general practitioner and specialist doctors. The results suggest that the economic consequences of childhood obesity are much larger than previously estimated.

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Keywords Medical costs, Child, Ren, Overweight, Obesity, BMI, Instrumental variable

## The value of education to health: Evidence from Ireland

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Abstract Does education have a causal impact on health? The existing literature presents mixed results. More evidence is required from contexts that have not been explored in the literature, and using clinically-measured health outcomes. Using data from the Irish Longitudinal Study on Ageing (TILDA), and exploiting a policy change in the 1960s that eliminated public secondary school fees, we investigate whether additional years of schooling for those with lower socio-economic status (SES) have a causal effect on the prevalence of cardiovascular disease in later life. We find significant sizable effects of education on the prevalence of both hypertension and diabetes. An additional year of schooling decreases the probability of having hypertension by approximately 3% points, and decreases the probability of having diabetes by approximately 1% point, effects that are large given existing prevalence. Further analysis of possible mechanisms shows that additional schooling increases the probability of engaging in high levels of physical activity and refraining from smoking. In the context of an increasing focus on strategies to prevent chronic disease, evidence such as this provides important insights for policymakers tasked with designing public health interventions targeting risk factors for chronic disease.

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Keywords Education, Hypertension, Diabetes, Instrumental variables, Ireland

## Long-run overweight levels and convergence in body mass index

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Source Economics and Human Biology, September 2018, v. 31, pp. 26-39

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Abstract We evaluate the hypothesis of convergence to an optimal long-run body weight worldwide. We formulate a simple rational non-addiction eating model to derive a testable equation that allows us to verify the existence of a long-run body weight as well as its estimation. We use a database of body mass index (BMI) estimates across countries over four decades published by the NCD Risk Factor Collaboration. We find that BMIs converge among European countries but not in the rest of the world. Consistent with the theoretical model, our long-run estimates suggest that European nations will show an average BMI above healthy levels. In particular, females and males will show average BMIs classified as overweight levels (BMI = 28.3). Confidence intervals and sensitivity analysis suggest that males might reach long-term BMI levels associated with obesity (BMI > 30). We discuss the implications of our findings from the perspectives of health economics and economic development.

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Keywords Obesity, Overweight, Body mass index, Convergence, Rational eating model

## The effects of chronic non-communicable diseases on labour force outcomes: Quasi experimental evidence from Sri Lanka

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Abstract We investigate the effects of experiencing non-communicable diseases (NCDs) on labour force outcomes of working-age individuals and their households in Sri Lanka. For this, quasi-experimental evidence, including average treatment effects on those treated (ATT), are generated by using the self-reported health survey of the labour force of Sri Lanka. According to the analysis, individuals with at least one NCD account for approximately 19.15% of the working-age population. On average, employment probability, labour supply, and labour earnings of them are significantly lower than those of non-NCD individuals by 9.5% (ATT=−0.102, P < 0.001), 44.6% (ATT=−0.590, P < 0.001), and 47.9% (ATT=−0.652, P < 0.001), respectively. The negative impacts on labour force outcomes are notably larger in the cases of paralysis and mental illness. These NCDs reduce individual labour supply by more than 80% and labour earnings by more than 90%. The employment probability of individuals with paralysis and mental illnesses is also relatively lower by more than 60%. Apart from these individual-level effects, the paper provides evidence on how labour force outcomes at the household level are influenced by NCDs. Our findings demonstrate that the association between individuals’ NCD-prevalence and labour force outcomes is relatively stronger for males, informal sector employees, and elderly people. The results suggest several social inclusion policies.

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Keywords Labour force outcomes, Non-communicable diseases, Propensity score matching, Sri Lanka, Household surveys

## Perceived health risk, environmental knowledge, and contingent valuation for improving air quality: New evidence from the Jinchuan mining area in China

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Abstract This study examined people’s willingness to pay (WTP) for improving air quality obtained through contingent valuation method (CVM) in the context of the theory of planned behaviour. Following this theory, four indicators were developed to measure people’s behavioural intentions for improving air quality; two of these indicators were correlated with contingent valuation survey. Structural equation modelling (SEM) was employed to estimate our Perception-based Behavioural Intention Model (PBIM) by using a cross-sectional data set of 759 residents of the Jinchuan mining area in Gansu Province, China. We found that Jinchuan residents’ WTP for improving local air quality was significantly influenced by the perceived health risk of hazardous pollutants, environmental knowledge, socioeconomic status, current health condition, gender, work environment, and proximity to the pollution source. This study shows that SEM outperforms conventional CVM econometrically and in terms of the provision of relevant policy information.

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Keywords Contingent valuation method, Behavioural intention, Perceived health risk, Environmental knowledge, Air pollution, China

## Fracking and risky behaviors: Evidence from Pennsylvania

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Abstract In the past decade, the technological developments in the oil and natural gas extraction industry made the extraction of shale gas economically feasible and prompted local economic booms across the US. Anecdotal evidence suggests that areas with unconventional gas development experience a disproportionate increase in the young male population who are more likely to be involved in risk-taking behavior. Moreover, the sudden income gains or demographic shifts might increase the demand for various goods and services, including entertainment and illegal activities provided by the adult entertainment industry. We investigate the relationship between unconventional gas development and a variety of risk-taking outcomes such as sexually transmitted infections, and prostitution-related arrests. Our identification strategy exploits the variation in shale gas or unconventional well drilling across time and counties in conjecture with a number of datasets that allow us to investigate the potential mechanisms. Our findings indicate that Pennsylvania counties with fracking activities have higher rates of gonorrhea and chlamydia infections (7.8% and 2.6%, respectively), as well as higher prostitution related arrests (19.7%). We posit that changes in the labor market and associated impacts to income or composition of workers may play a role in the estimated effects, but we do not find evidence in support of these hypotheses.

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Keywords Fracking, Gonorrhea, Chlamydia, Prostitution, Pennsylvania, Risky behavior

## Intergenerational transmission of nicotine within families: Have e-cigarettes influenced passive smoking?

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Abstract Using an objective biomarker of active and passive smoking, we estimate Galtonian regressions of nicotine transmission and test whether the use of new nicotine delivery products (NDP) by parents had an influence on the transmission to children through passive smoking. We find evidence of a strong intergenerational transmission through passive smoking and that this is around four times larger for mothers compared to fathers. Moreover, we estimate an intention to treat difference-in-differences (DiD) model using parental cotinine as a continuous measure of exposure to the treatment and we find that the level of transmission of cotinine from parents was reduced to 51 per cent of the previous level just after the spread in the use of e-cigarettes in England and to 77 per cent when considering transmission from mothers. This is confirmed also by a DiD model which considers interaction between cotinine levels and self-reported use of NDP by parents and suggests that lower taxation of these devices may be justified on externality grounds.

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Keywords Nicotine, Passive smoking, Intergenerational mobility, Galtonian regression, Electronic cigarettes, Tobacco taxes

## The Impact of Education on Health Outcomes and Behaviors in a Middle-Income, Low-Education Country

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Abstract Although the impact of education on health is important for public policy everywhere, the overwhelming majority of research identifying the health returns to education has focused on developed countries. We use data from multiple waves of nationally-representative Health and Tobacco Surveys in Turkey, and exploit an education reform that increased the mandatory years of schooling from 5 to 8 years in 1997. Using exposure to the reform as an instrument for completing at least eight years of schooling, we examine the impact of education on health indicators and smoking among young adults. We find that extending schooling on this margin impacts men and women differently. Our results indicate that while a one-year of extra schooling increases the likelihood of being obese among males by 9.9 percentage points, the same increase in schooling improves the probability of women being in the healthy weight range by 15.5 percentage points. Consistent with this result, an extra year of education increases women’s propensity to self-evaluate their health as excellent by 4.3 percentage points. Additional analyses reveal that education makes men (but not women) more likely to spend time on computers, using the internet, and to spend time on social media, suggesting that differential time allocation between men and women, triggered by enhanced education, may be a mechanism behind the differential results between the sexes. Education has no impact on smoking for men or women regardless of the measure of smoking.

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Keywords Compulsory schooling, Health outcomes, Health behaviors, BMI, Obesity, Smoking

## Has the growth in “fast casual” Mexican restaurants impacted weight gain?

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Abstract The United States is witnessing a boom in fast casual restaurants owing to the recent growth of ethnic restaurants throughout the country. This study examines the effects of proximity to a Mexican restaurant—the dominant type of ethnic fast casual restaurant—on maternal and child health. I match data on the complete residential addresses of all mothers who gave birth in the Miami metropolitan area between 1990 and 2009 to a time series of all establishments (restaurants and stores) selling food and drink. This unique data set allows me to use mother fixed effects and to exploit the variation over time of the food environment to identify the effects on maternal weight gain and childbirth outcomes. The results show that living in proximity to a Mexican restaurant is associated with an 8% lower likelihood of excessive weight gain among US-born mothers. These effects are concentrated in low-income neighborhoods and among members of disadvantaged groups (e.g., low-skilled, young, and African-American individuals). However, the results show no protective effect for foreign-born mothers. Lastly, there is no evidence of significant effects on other maternal outcomes or on various child health metrics at birth.

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# Volume 30 – September 2018

## Why are women slimmer than men in developed countries?

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Abstract Women have a lower BMI than men in developed countries, yet the opposite is true in developing countries. We call this the gender BMI puzzle and investigate its underlying cause. We begin by studying time trends in Japan, where, consistent with the cross-country puzzle, the BMI of adult women has steadily decreased since the 1950s, whereas the BMI of adult men has steadily increased. We study how changes in energy intake and energy expenditure account for the over-time gender BMI puzzle using the Japanese National Nutrition Survey from 1975 to 2010, which provides nurse-measured height and weight and nutritionist-assisted food records. Because long-term data on energy expenditure do not exist, we calculate energy expenditure using a steady-state body weight model. We then conduct cross-country regression analysis to corroborate what we learn from the Japanese data.  
  
We find that both energy intake and energy expenditure have significantly decreased for Japanese adult men and women and that a larger reduction in energy expenditure among men than women accounts for the increasing male-to-female BMI gap. Trends in BMI and energy expenditure vary greatly by occupation, suggesting that a relatively large decrease in physical activity in the workplace among men underlies the gender BMI puzzle.  
  
The cross-country analysis supports the generalizability of the findings beyond the Japanese data. Furthermore, the analysis suggests the increasing male-to-female BMI gap is driven not only by a reduction in the energy requirements of physically demanding work but also by weakening occupational gender segregation. No support is found for other explanations, such as increasing female labor force participation, greater female susceptibility to malnutrition in utero, and gender inequality in nutrition in early life.

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Keywords Body mass index, Steady-state body weight, Physical activity, Energy intake, Energy accounting, Occupational gender segregation

## Zika virus incidence, preventive and reproductive behaviors: Correlates from new survey data

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Source Economics and Human Biology, September 2018, v. 30, pp. 14-23

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Abstract During the outbreak of the Zika virus, Brazilian health authorities recommended that pregnant women take meticulous precaution to avoid mosquito bites and that women in general use contraceptive methods to postpone/delay pregnancies. In this article, we present new estimates on the Zika virus incidence, its correlates and preventive behaviors in the Northeast of Brazil, where the outbreak initiated, using survey data collected between March 30th and June 3rd of 2016. The target population were women aged 15–49 in the capital cities of the nine states of the Northeast region of Brazil. We find that more educated women were less likely to report suffering from Zika (or its symptoms) and more likely to report having taken precaution against Zika, such as having used long and light-colored clothes, having used mosquito repellent or insecticides, having used mosquito protective screens or kept windows closed, and having dumped standing water where mosquitoes can breed. In addition, more educated women were more likely to report being informed about the association between Zika and microcephaly and to avoid pregnancy in the last 12 months. Finally, we also find that women who reported experiencing sexual domestic violence in the last 12 months were more likely to report suffering from Zika.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X18301060

Keywords Zika, Education, Domestic violence, Information, Prevention, Survey data

## Sexual identity, same-same relationships, and health dynamics: New evidence from Australia

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Publication Date Received 6 March 2017, Revised 7 February 2018, Accepted 8 February 2018, Available online 13 February 2018

Abstract Prior research has found that opposite-sex marital and cohabiting relationships are associated with improvements in health. However, studies examining the health dynamics of same-sex relationships are sparser because few nationally representative longitudinal datasets collect information on adults’ sexual identity. Using newly available data on sexual minorities from the Household, Income and Labour Dynamics in Australia (HILDA) Survey, we estimate the effects of Lesbian/Gay/Bisexual (LGB) identification and same-sex relationships on health dynamics. We document two key findings. First, sexual minorities in Australia are more likely to engage in risky health behaviors and report worse health than their heterosexual counterparts. Second, after exploiting the longitudinal nature of the HILDA and accounting for selection into relationships using the dynamic panel approach of Kohn and Averett (2014), we find that while opposite-sex partnerships are associated with a 3 to 7 percentage-point decline in risky health behaviors and improved physical and mental health, the health benefits of same-sex relationships are weaker, particularly for men.

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Keywords Sexual identity, Same-sex relationships, Health dynamics

## Smoking ban and health at birth: Evidence from Hungary

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Source Economics and Human Biology, September 2018, v. 30, pp. 37-47

Publication Date Received 19 January 2018, Revised 20 April 2018, Accepted 31 May 2018, Available online 13 June 2018

Abstract In 2012, smoking restrictions were extended to hospitality venues in Hungary. Women working in bars and restaurants were primarily affected by the intervention. In this research, we analyze the effect of this smoking ban on the outcomes of their pregnancies. Using individual live birth, fetal loss, and infant mortality registry data, we examine the probability of live birth, indicators of health at birth, and the probability of death in the first year of life. We apply a difference-in-differences framework and show that the smoking ban has improved health at birth. We observed birth weight to increase by 56 g (95% CI: 4.2 to 106.8) and gestation length by 0.19 weeks (95% CI: 0.02 to 0.36). Due to the ban, the probability of being born with very low and low birth weight has decreased by 1.2 and 2.2 percentage points, respectively (95% CI: −0.2 to −2.2 and 0.06 to −4.4), and we see a 0.9 percentage points reduction in the chance of being born very preterm (95% CI: −0.03 to −1.9). We also observe a decrease in the probability of being born with a low Ponderal index (decrease of 4.1 percentage points, 95% CI: −0.7 to −7.5). Performing a series of robustness and placebo tests, we provide evidence that supports the causal interpretation of our results. We also show that the ban was more beneficial for newborns of parents with low educational attainment and at the bottom of the fetal health endowment distribution.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X18300194

Keywords Smoking ban, Health at birth, Policy evaluation

## “Do I look fat?” Self-perceived body weight and labor market outcomes

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Source Economics and Human Biology, September 2018, v. 30, pp. 48-58

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Abstract Research reporting that greater body weight is associated with lower wages and employment, particularly among women, focuses on how employers perceive workers. In contrast, we examine whether workers’ own perceptions of body weight influence labor market outcomes. Numerous studies find that misperception of body weight influences health behaviors and health, both mental and physical. For example, anorexia nervosa involves the over-perception of weight and raises the risk of cardiovascular disease. Do the health consequences of inaccurate self-perceived weight carry through to the labor market? We use the National Longitudinal Survey of Youth 1997 (NLSY97) to investigate patterns in weight misperception and three labor market outcomes. We find little evidence that either over-perception or under-perception of weight is associated with wages, weeks worked, or the number of jobs held for women and men.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17302617

Keywords BMI, Weight misperception, Wages, Employment

## The effects of in utero exposure to the 1918 influenza pandemic on family formation

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Source Economics and Human Biology, September 2018, v. 30, pp. 59-68

Publication Date Received 12 December 2017, Revised 19 April 2018, Accepted 11 June 2018, Available online 26 June 2018

Abstract A growing literature ties in utero conditions to life course outcomes, including education, earnings, and adult health and mortality. A smaller literature has begun to examine the intergenerational impacts of in utero conditions. A link between these two literatures—the impacts of in utero conditions on family formation—has had few examinations but offers a potential set of mechanisms for the intergenerational reach of early conditions. This paper draws from the 1960 US Decennial Census to examine whether individuals exposed in utero to the 1918/19 influenza pandemic had different family formation patterns than adjacent unexposed cohorts. The findings suggest small overall effects on marriage rates, number of children, and several measures of “type” of spouse for men, but moderate effects for women. For example, women with in utero exposure during their first trimester marry men with 0.2 fewer years of schooling than those not exposed. The findings show that exposed individuals have spouses with lower schooling than unexposed counterparts, this effect is particularly large for women, and it increases the likelihood of marrying spouses with very low levels of schooling.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X1730312X

Keywords In utero exposure, Life course analysis, Family formation, 1918 influenza pandemic

## The effect of prenatal exposure to Ramadan on children’s height

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Abstract We examine the effect of prenatal exposure to Ramadan on children’s height by sex, age, region, and the degree of religiosity. Since Ramadan rotates on solar calendars, we pool demographic and health survey data from numerous developing countries to increase the number of birth years and fairly control for potential seasonal effects. Our results suggest that Ramadan-induced nutritional stress during early- and mid-gestation may negatively affect the height of 3 and 4 years old Muslim male children. The effect tends to be stronger in West Africa and Central Asia. It also tends to be stronger in more religious countries. We do not detect consistent negative effects on height in female children.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2018.05.001

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17303039

Keywords Prenatal exposure to Ramadan, Children, Height, Height-for-age Z-Score, Religiosity

## There is no such thing as a (gluten-)free lunch: Higher food prices and the cost for coeliac consumers

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Source Economics and Human Biology, September 2018, v. 30, pp. 84-91

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Abstract A lifelong gluten-free diet is the only available treatment for coeliac disease at present. However, the high price of gluten-free substitute foods is likely to generate a welfare loss for consumers who drop gluten from their diet. Using original data on retail prices in four major UK supermarkets and consumption data from the UK Living Cost and Food Survey, we simulate the welfare change associated to a switch to the gluten-free diet. Within the “Bread and Cereals” category, retail price data show that the average price of gluten-free products is £1.12/100g relative to £ 0.59/100g of gluten-containing products. Our estimates indicate that on average in the UK coeliac consumers have to pay an extra £ 10 per week to maintain their utility levels prior to the dietary switch. This correspond to 29% of the weekly food budget. Results by income quartile are suggestive of regressive effects and the welfare loss for low-income consumers is estimated at 36% of their food budget compared to 24% of high-income consumers.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X18300030

Keywords Coeliac disease, Compensating variation, Welfare, Food prices, Disparities

## The effect of unemployment insurance on alcohol use and abuse following job loss

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Abstract We investigate whether unemployment insurance (UI) policy affects the drinking behavior of the unemployed. Using NLSY data supplemented with Geocode data, we estimate the effect of benefit replacement rates on changes in individual alcohol consumption following job loss. Identification relies on variation in replacement rates across states and over time. Results indicate that a 100% increase in benefit replacement rate, roughly equivalent to a state moving from the lowest to the highest replacement rate, would, on average, result in unemployed individuals consuming 19.1 additional drinks a month. Looking at the change in an individual's binge drinking upon job loss, individuals receiving the highest level of benefits are 14.7% more likely to increase their binge drinking than those receiving the least generous benefits. We find that individuals’ responsiveness to changes in replacement rates vary based on drinking history, industry labor market conditions, education, and age.

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Keywords Alcohol consumption, Job loss, Unemployment insurance

## The effects of school desegregation on infant health

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Source Economics and Human Biology, September 2018, v. 30, pp. 104-118

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Abstract This paper examines the effects of school desegregation on infant health using birth certificate data from 1970 to 2002 and a multiple difference-in-differences approach that exploits variation in the timing of desegregation across counties. Using cohort fixed effects and county fixed effects, I find that among black mothers in Southern regions, school desegregation reduces preterm births by 1.7 percentage points. These results are robust to county-specific cohort trends, county-specific year trends, and state-specific cohort fixed effects. In addition, school desegregation increases maternal education and prenatal care in the first trimester and decreases the likelihood of the child having a teenage father. These may be important pathways to improved infant health. This paper adds to the growing literature on the importance of school desegregation in areas beyond academic achievement.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X18300248

Keywords School desegregation, Infant health, Mother's education

## Altruism in preventive health behavior: At-scale evidence from the HIV/AIDS pandemic

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Publication Date Received 13 February 2018, Revised 18 April 2018, Accepted 31 May 2018, Available online 3 July 2018

Abstract Preventive behavior with regards to disease transmission offers a promising context in which to provide empirical evidence on altruism in human populations. I examine the association between HIV status, own knowledge about status, and preventive health behavior using household survey data from over 200,000 individuals in 25 sub-Saharan African countries. I find that individuals who are HIV positive and have taken a standard HIV test are much more likely to engage in efforts to prevent HIV transmission than are individuals who are HIV negative and have taken a standard HIV test. Moreover, this difference is greater than the difference between HIV positives and HIV negatives for individuals who have not taken a standard HIV test. Consistent with an altruistic motivation, this double-difference is larger for individuals who are married than for individuals who are not married. These results appear to be the first evidence on the change in risky sexual behavior associated with HIV testing at scale and are consistent with altruism dominating any self-interested response to HIV testing.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X18300509

Keywords Altruism, HIV/AIDS, Preventive health, Sub-Saharan Africa

## Parental human capital and child health at birth in India

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Abstract Health at birth shapes an individual's well-being over her life cycle. We categorize the Indian states into high and low infant mortality regions to capture the diverse disease environment and analyze the nature of the association between parental human capital and child survival and nutrition measures at birth. We restrict our analysis only to firstborns to avoid confounding from a number of factors including sex-selective abortions in the higher birth orders. We broadly find that parental human capital, especially maternal health, is a strong and significant predictor of a child's birth outcomes under adverse disease environment. In the rural areas of the high infant mortality states, a 10-centimeter increase in maternal height is associated with 1.7% lower probability of a child dying as a neonate and 5% increase in birth weight around the mean. These estimates suggest that an investment in human capital of the mothers from this region could accompany large gains in survival and nutrition outcomes of their children.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17302411

Keywords Birth endowments, Intergenerational Transmission, Human Capital, Disease Environment, Trivers-Willard Hypothesis

## Household dairy production and child growth: Evidence from Bangladesh

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Source Economics and Human Biology, September 2018, v. 30, pp. 150-161

Publication Date Received 18 January 2018, Revised 25 June 2018, Accepted 11 July 2018, Available online 17 July 2018

Abstract Research from richer countries finds that dairy consumption has strong positive associations with linear growth in children, but surprisingly little evidence exists for developing countries where diets are far less diversified. One exception is a recent economics literature using the notion of incomplete markets to estimate the impacts of cattle ownership on children’s milk consumption and growth outcomes in Eastern Africa. In addition to external validity concerns, an obvious internal validity concern is that dairy producers may systematically differ from non-dairy households, particularly in terms of latent wealth or nutritional knowledge. We re-examine these concerns by applying a novel double difference model to data from rural Bangladesh, a country with relatively low levels of milk consumption and high rates of stunting. We exploit the fact that a cow’s lactation cycles provide an exogenous source of variation in household milk supply, which allows us to distinguish between a control group of households that do not own cows, a treatment group that own cows that have produced milk, and a placebo group of cow-owning households that have not produced milk in the past 12 months. We find that household dairy production increases height-for-age Z scores by 0.52 standard deviations in the critical 6–23 month growth window, though in the first year of life we find that household dairy supply is associated with a 21.7 point decline in the rate of breastfeeding. The results therefore suggest that increasing access to dairy products can be extremely beneficial to children’s nutrition, but may need to be accompanied by efforts to improve nutritional knowledge and appropriate breastfeeding practices.

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Keywords Livestock, Dairy production, Animal-sourced foods, Stunting

## Economic downturns and infant health

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Abstract We study the gender-specific impact of macroeconomic conditions around birth on infant health. We use a sample of over 50,000 respondents born between 1950 and 1994 from Lifelines—a cohort and biobank from the northern Netherlands. Our results show that high provincial unemployment rates decrease fertility and lead to a lower birthweight in boys. The negative impact of high unemployment on birthweight is particularly strong for boys born to older mothers and for babies born to smoking mothers.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17302769

Keywords Birthweight, Unemployment, Cohort studies

## The 2D:4D ratio does not always correlate with economic behavior: A field experiment with African-Americans

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Abstract Several studies present evidence of correlations between prenatal testosterone exposure measured with the 2D:4D ratio and behaviors such as pro-social behavior, risk and patient attitudes, and self-employment. Individuals exposed prenatally to higher levels of testosterone have lower levels of risk aversion, higher levels of patience and invest more in others, and in themselves, therefore have higher individual financial wellbeing. We test these hypotheses with a sample of 115 African-Americans who live in a low-income urban area in the U.S. The 2D:4D ratio in our sample of males and females does not have a consistent and robust correlation with risk, patient attitudes, pro-social behavior and self-employment in contrast to previous studies.

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Keywords Risk, Time preferences, Patience, Pro-social behavior, Self-employment, 2D:4D ratio, Prenatal testosterone exposure

# Volume 29 – May 2018

## Decision-making, financial risk aversion, and behavioral biases: The role of testosterone and stress

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Source Economics and Human Biology, May 2018, v. 29, pp.1-16

Publication Date Received 14 June 2017, Revised 13 January 2018, Accepted 13 January 2018, Available online 4 February 2018

Abstract We examine the relation between testosterone, cortisol, and financial decisions in a sample of naïve investors. We find that testosterone level is positively related to excess risk-taking, whereas cortisol level is negatively related to excess risk-taking (correlation coefficient [r]: 0.75 and −0.21, respectively). Additionally, we find support for the dual-hormone hypothesis in a financial context. Specifically, the testosterone-to-cortisol ratio is significantly related to loss aversion. Individuals with a higher ratio are 3.4 times more likely to sell losing stocks (standard error [SE]: 1.63). Furthermore, we find a positive feedback loop between financial success, testosterone, and cortisol. Specifically, financial success is significantly related to higher post-trial testosterone and cortisol by a factor of 0.53 (SE: 0.14). Finally, we find that in a competitive environment, testosterone level increases significantly, leading to greater risk-taking than in noncompetitive environment. Overall, this study underscores the importance of the endocrine system on financial decision-making. The results of this study are relevant to a broad audience, including investors looking to optimize financial performance, industry human resources, market regulators, and researchers.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2018.01.003

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301466

Keywords Testosterone, Cortisol, Stress, Risk aversion, Disposition effect

## Health and health inequality during the great recession: Evidence from the PSID

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Source Economics and Human Biology, May 2018, v. 29, pp.17-30

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Abstract We estimate the impact of the Great Recession of 2007–2009 on health outcomes in the United States. We show that a one percentage point increase in the unemployment rate resulted in a 7.8–8.8% increase in reports of poor health. In addition, mental health was adversely impacted. These effects were concentrated among those with strong labor force attachments. Whites, the less educated, and women were the most impacted demographic groups.

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Keywords Great recession, Health behaviors, Health outcomes, Inequality

## Smoking and early retirement due to chronic disability

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Abstract This paper considers the long-term effects of smoking on disability retirement in Sweden. Smoking is known to have damaging effects on health, but there is limited evidence on how the effects of smoking translate into worse labour market outcomes, such as the inability to work. In contrast to the few previous studies on smoking and disability retirement, we use a large population sample with registry information on smoking, which is recorded for all women who give birth in Sweden. Thanks to these comprehensive data, we are able to account for a much broader range of potential confounders. In particular, by the use of sibling and twin fixed effects, we account for unobserved heterogeneity in childhood environment and family characteristics. Given that smoking is often initiated in adolescence, one would suspect such factors to play important roles.  
Among individuals aged 50–64 in 2011, a simple model suggested smokers to have a 5 percentage point higher probability of receiving (full) disability pension, making them more than twice as likely as non-smokers to receive this. However, in a model with sibling fixed effects, the size of the effect was reduced by more than a third. The results point to the importance of confounders, such as childhood circumstances or behaviours, which were not accounted for by previous studies. We also consider effects on disability due to different health conditions. In relative terms, effects are the largest for circulatory conditions and tumours. Results are largely driven by health problems severe enough to merit hospitalization, and there is no evidence of a role played by financial incentives.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X1730062X

Keywords Smoking, Disability retirement, Specific conditions, Siblings, Twins

## Family size effects on childhood obesity: Evidence on the quantity-quality trade-off using the NLSY

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Abstract In this study, we use matched mother-child data from the National Longitudinal Surveys to study the effects of family size on child health. Focusing on excess body weight indicators as children’s health outcome of interest, we examine the effects of exogenous variations in family size generated by twin births and parental preference for mixed sex composition of their children. We find no significant empirical support in favor of the quantity-quality trade-off theory in instrumental variable regression analysis. This result is further substantiated when we make use of the panel aspects of the data to study child health outcomes of arrival of younger siblings at later parities. Specifically, when we employ child fixed effects analysis, results suggest that birth of a younger sibling is related to a decline in the likelihood of being overweight by 4 percentage points and a drop in the probability of illness by approximately 5 percentage points.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301077

Keywords Family size, Children, Overweight, Obesity, Instrumental variables, Fixed effects

## Childhood obesity in China: Does grandparents’ coresidence matter?

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Source Economics and Human Biology, May 2018, v. 29, pp. 56-63

Publication Date Received 7 November 2017, Revised 26 January 2018, Accepted 2 February 2018, Available online 17 February 2018

Abstract Childhood obesity in China has been increasingly cited as a major public health issue in recent decades. The effect of grandparents on grandchildren’s weight outcome is under-analyzed. Using data from the China Health and Nutrition Survey, we examine the effect of grandparents’ coresidence on childhood weight outcome with a sample of 2–13-year-old children in China. We use instrumental variables to address the potential endogeneity of grandparents’ coresidence. We show that the effect of grandparents’ coresidence on childhood weight outcome is significantly positive. Grandparents’ coresidence affects a grandchild’s weight outcome through changes in dietary patterns and physical activity. The effects on dietary patterns exist in urban areas and significantly lower in rural areas. Grandparents’ coresidence decreases physical activity more in rural areas than in urban areas. Furthermore, the effects of coresidence on protein intake and physical activities of children above 6 are significantly higher for males than females. A robustness check, including an ordered logit model with a body mass index category and estimation with additional data, validates our findings.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17302733

Keywords Childhood obesity, Grandparent, Coresidence, Nutrition intake, Physical activity

## Sex selection and health at birth among Indian immigrants

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Source Economics and Human Biology, May 2018, v. 29, pp. 64-75

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Abstract I use birth-certificate data for Spain to document extremely son-biased sex ratios at birth among Indian immigrants (122 boys per 100 girls), especially at higher parities. I also show that the children of Indian immigrants display poor health outcomes during infancy. For instance, almost 10% of boys with Indian parents are born prematurely, compared with 6% of boys with native parents. However, there is no evidence of a gender gap in infant health among the children of Indian immigrants. I provide evidence suggesting that the poor outcomes of Indian children at birth may be attributed to the low endowments of Indian mothers, while the absence of a gender gap may be driven by the fact that the parents who would invest less in girls are less likely to carry the pregnancies of girls to term (more likely to practice sex-selective abortion), combined with the lower cost of prenatal investments in Spain (compared with India).

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300527

Keywords Fertility, Sex ratio, Abortion, Sex selection, Son preference, Infant health, Immigration, India, Spain

## Ladies first: Female and male adult height in Switzerland, 1770–1930

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Source Economics and Human Biology, May 2018, v. 29, pp. 76-87

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Abstract When investigating the well-being of a society, the living conditions of females are of special importance, not only due to the immediate impact for those directly involved, but also because of the potential intergenerational effects. Studying the dimorphism in the mean height helps to depict variation in the basic biological sex difference due to gender-related factors that potentially determine net nutrition.  
  
To expand knowledge of diachronic development in Swiss well-being conditions we investigate changes in the height of adult females born 1770–1930, and compare the series with data on contemporary males from the same sources: We employ a sample of N = 21′028 women and N = 21′329 men from passport-, convict-, maternity hospital-, and voluntary World War II army auxiliary records.  
  
The secular height trend is found both in males, from the 1870s/1880s, and in females starting with the 1840s/1850s birth cohorts. During the decades under study, mean height increased from 157 cm to 164 cm in female and 167 cm to 172 cm in male passport applicants, 154 cm to 159 cm in female and 167 cm to 169 cm in male convicts, 159 cm to 163 cm in female auxiliaries, and 155 cm to 159 cm in females giving birth in the maternity hospital of Basel. Because females seem to have started the secular trend in height earlier than their male contemporaries, the height dimorphism decreased during the second half of the 19th century.  
  
Differences between socio-economic status (SES) and data sources are found in both females and males: Women with low SES were significantly shorter than those of the other SES groups in all sources (on average 1.40 cm, p-values between 0.00 and 0.03). In men we found individuals of upper SES to be significantly taller (on average 1.96 cm, p-value = 0.00–0.10). Concerning differences between the sources, overall, passport applicants were the tallest for men as well as women; in females the individuals measured at the maternity hospital and in prison were the shortest. The variances across the datasets highlight the importance of considering different sources to depict average living conditions. Noteworthy is the finding that the diverse sources under study all show the same trajectory of increasing mean height over the course of the 19th century. In the long run, the improving net nutritional status of Swiss females may have been one of the contributors behind the general rise in well-being of the country’s population from the later 19th century onwards.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2018.02.002

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17303179

Keywords Net nutritional status, Height dimorphism, Gender aspects, SES differences, Switzerland, 19th century

## The educational impact of shocks in utero: Evidence from Rwanda

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Source Economics and Human Biology, May 2018, v. 29, pp. 88-101

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Abstract Research on the impact of violence and conflict on education typically focuses on exposure among a cohort of school-aged children. In line with the fetal origins hypothesis, this paper studies the long-run effect of exposure to adverse maternal health shocks while still in the womb. Exploiting the sudden and discrete nature of the Rwandan genocide and an identification strategy based on temporal and spatial variation, we find that the cohort in utero during the genocide reported on average 0.3 fewer years of schooling in the 2012 Rwanda. Population and Housing Census and was 8% points less likely to finish primary school relative to the cohort in utero just a couple of months later.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2018.01.005

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301909#!

Keywords Conflict, Genocide, Education, Pre-natal exposure, Fetal origins hypothesis, Rwanda

## Hybrid marriages and phenotypic heterosis in offspring: Evidence from China

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Source Economics and Human Biology, May 2018, v. 29, pp. 102-114

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Abstract In genetics, heterosis refers to the phenomenon that cross-breeding within species leads to offspring that are genetically fitter than their parents and exhibit improved phenotypic characteristics. Based on the theory of heterosis and existing genetic evidence, offspring of “hybrid” marriages (spouses originating from different states/provinces/countries/areas), though relatively rare due to physical boundaries, may exhibit greater genetic fitness in terms of intelligence, height, or physical attractiveness (the “distance-performance” hypothesis). This study explores whether heterosis is a contributing factor to offspring’s educational attainment in China by applying a high-dimensional fixed effects (HDFE) modelling framework to the unique 0.1% micro-sample of the 2000 Chinese Population Census data. Concerning potential endogeneity of hybrid marriages, we conduct a series of robustness checks. Reassuringly, the estimated heterosis effect remains significantly positive across various measurements, after controlling for parental educational attainments/height, environmental influences, and over a thousand region and region-by-year fixed effects. The effects in male and higher-educated offspring are found to be stronger. Results are replicated when analyzing body height using data from the China Health and Nutrition Survey. Although endogeneity of “hybrid marriages” may not be completely ruled out, the current study sheds light on the potentially beneficial effects of interprovincial migration on population-level human capital accumulation, and we hope that this paper can intrigue future studies that further address endogeneity. The implied heterosis effect could, therefore, be profound for Homo sapiens as a species from an evolutionary point of view. An additional important implication is that the overall genetic influences of parents on offspring’s performance may be further decomposed into a conventional heredity effect and a heterosis effect that has been neglected previously.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2018.02.008

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300825

Keywords Heterosis, Hybrid marriage, Genetic distance, Educational attainment, Height

## Employment and weight status: The extreme case of body concern in South Korea

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Source Economics and Human Biology, May 2018, v. 29, pp. 115-121

Publication Date Received 18 July 2017, Revised 10 January 2018, Accepted 18 January 2018, Available online 9 March 2018

Abstract For an industrialized nation, obesity rates in South Korea are extremely low. Yet, reflecting an extremely fat-averse, thin-positive society, efforts to lose weight are now reportedly very common. Since the 1980s, South Korea has experienced an increasingly flexible and insecure labor market which was exacerbated by the 1997 economic recession. In this social and economic setting, body shape and weight status, as human capital, may have gained significant bargaining power in the labor market. Consequently, we propose that Koreans, particularly those who are employed in “stable” jobs (i.e., non-manual and regular jobs), would increasingly engage in intense weight management and reduction activities even when not technically overweight or obese as a means to job security and upward mobility. Using nationally-representative data from the Korean Nutrition and Health Examination Survey (KNHANES), we identify the changing role of weight concerns versus actual body weight in predicting South Korean efforts to lose weight between 2001 (KNHANES-phase 1) and 2007–2009 (phase 4). The patterns were examined by occupation type (manual and non-manual jobs) and status (regular and non-regular jobs). Oaxaca decomposition analysis supported that people’s perception of being “fat,” rather than actual weight status, was crucial to explaining accelerated weight management efforts in South Korea over the decade (coef. = 0.062 and p-value < .0001 for male with regular work; coef. = 0.031 and p-value = .002 for female with regular work). Occupation status, rather than employment in itself, mattered. Job stability predicted increased effort; the pattern of change through time suggests efforts to invest high levels of effort in appearance positively impacts both employment opportunity and stability.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301892

Keywords Weight management, Employment, Obesity, Body image, South Korea

## Craniofacial asymmetry as a marker of socioeconomic status among undocumented Mexican immigrants in the United States

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Abstract This study examines levels of fluctuating asymmetry (FA) in Mexican residents, U.S. residents, and undocumented border crossers (UBCs) from Mexico to the United States. Craniofacial structures develop symmetrically under ideal circumstances; however, during periods of developmental stress random deviations from perfect symmetry, or FA, can occur. It is hypothesized that the UBC sample would represent individuals of a lower socioeconomic status (SES) who experienced higher stress levels during development, and that these individuals would consequently have higher levels of FA. Three-dimensional cranial landmarks were collected from 509 individuals representing the three resident groups. Geometric morphometric methods were used to calculate an FA score for each individual. The FA score provides a distance measure that is a scalar measure of the magnitude of FA in each individual. The results show that the difference in the means of the FA scores between UBCs and U.S. residents is 0.43 (p = 0.02), with UBCs showing significantly higher levels of FA compared to U.S. residents. Moreover, Mexican residents’ FA levels are intermediate between and not significantly different from the other two samples. These results suggest that levels of FA may prove useful for reconstructing individuals’ social and economic circumstances, and that craniofacial asymmetry provides a suitable biological marker for analyzing differences in SES among different groups.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X1830042X

Keywords Developmental stress, Undocumented border crossers, Migration, Fluctuating asymmetry

## Can we increase organ donation by reducing the disincentives? An experimental analysis

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Publication Date Received 12 July 2017, Revised 28 February 2018, Accepted 1 March 2018, Available online 7 March 2018

Abstract Our research utilizes the experimental economics laboratory to investigate the impact that reducing disincentives has on organ donation. The experiment consists of four treatments across different levels of donation related costs, which reflect the disincentives associated with being an organ donor. Our experimental results indicate that sizable increases in the organ donation rate are achievable if we reduce the level of disincentives present. The largest observed donation rates arise when a financial return is offered for being an organ donor, which is prohibited under the National Organ Transplant Act (NOTA), but nearly 80% of the gains observed under the positive financial incentives can be achieved if all of the disincentives are eliminated.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301855

Keywords Organ donation, Disincentives, Laboratory experiment

## Smoking and local unemployment: Evidence from Germany

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Abstract In this paper, we use data from the German Socio-Economic Panel to investigate the effect of macro-economic conditions (in the form of local unemployment rates) on smoking behavior. The results from our panel data models, several of which control for selection bias, indicate that the propensity to become a smoker increases significantly during an economic downturn, with an approximately 0.7 percentage point increase for each percentage point rise in the unemployment rate. Conversely, conditional on the individual being a smoker, cigarette consumption decreases with rising unemployment rates, with a one percentage point increase in the regional unemployment rate leading to a decrease in consumption up to 0.8 percent.

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Keywords Business cycle, Smoking, Unemployment

## Persisting patterns of human height? Regional differences in living standards in the Early Middle Ages

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Publication Date Received 6 February 2017, Revised 24 November 2017, Accepted 14 February 2018, Available online 7 March 2018

Abstract Proximity to protein production’ has recently been identified as an important determinant of regional variation of biological standards of living, as evidenced by average heights. The number of cows per person turned out to be a useful proxy where milk consumption had not been documented. Re-analyses of agricultural production and average male heights in early 19th-century central Europe show that indicators of agricultural suitability and potential for food production constructed from modern agro-ecological data are strongly correlated with historical agricultural specialisation. This paper uses a dataset of estimated heights and evidence on circumstances of the burial of about 2200 individuals who had lived in southwestern Germany during the 5th–8th centuries to assess the usefulness of modern proxy variables for explanations of regional differences in living standards in the distant past. Assuming some continuity in the relative suitability of smaller areas, the results suggest similar responses to environmental and climatic constraints, even though population density, agricultural technology, market integration, and consumption patterns of subsistence farming were very different from 19th-century conditions.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300400

Keywords Biological standard of living, Skeletal evidence, Early Middle Ages, Conscripts, Proximity to protein production, Suitability for agriculture

## Height in eighteenth-century Chilean men: Evidence from military records, 1730–1800s

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Abstract This article provides the first height estimates for the adult population for any period of Chilean history. Based on military records, it gives an analysis of the average heights of male soldiers in the last eight decades of the colonial period, c.1730–1800s. The average height of Chilean men was around 167 centimetres, making them on average taller than men from Mexico, Italy, Portugal, Spain and Venezuela, but of a similar height to men from Sweden. However, Chilean men were clearly shorter than men in neighbouring Argentina, the USA and the UK. Chilean height remained stable during the 1740–1770s, but it declined by some 2–3 centimetres between the 1780 s and the 1800s, in line with a fall in real wages due to increasing food prices and population growth.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2018.03.004

Availability https://www.sciencedirect.com/science/article/pii/S1570677X1730165X

Keywords Biological standard of living, Physical stature, Height, Chile, Anthropometric history, Eighteenth century

## Inequality in old age cognition across the world

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Abstract Although cohort and country differences in average cognitive levels are well established, identifying the degree and determinants of inequalities in old age cognitive functioning could guide public health and policymaking efforts. We use all publicly available and representative old age surveys with comparable information to assess inequalities of cognitive functioning for six distinctive age groups in 29 countries. We document that cognitive inequalities in old age are largely determined by earlier educational inequalities as well as gender differential survival rates. For example, a one percentage point increase in the Gini index of past education is associated with an increase of 0.45 percentage points in the Gini index of delayed recall and 0.23 percentage points in the Gini of immediate recall. Results are robust to a variety of alternative explanations and persist even after controlling for gender-related biases in survival rates. Furthermore, we find evidence that unequal opportunities for education −captured by differences in parental background and gender- also have significant effects on inequality of old age cognition.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301806

Keywords Cognition functioning, Inequality, Old age, Education, Inequality of opportunity

## Why do very unattractive workers earn so much?

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Abstract Kanazawa and Still (2018) showed that very unattractive workers earned more than unattractive workers, sometimes more than average-looking or attractive workers, because they had higher levels of intelligence and education, but they did not explain why very unattractive workers had higher intelligence and education. There are both theoretical and empirical reasons to expect that some intelligent men may prefer to marry very unattractive women. The analysis of the National Longitudinal Study of Adolescent Health (Add Health) shows that very unattractive women were significantly more likely to be married at Age 29 than unattractive or average-looking women, and their spouses or partners earned significantly more than those of unattractive or average-looking women. If intelligent men have historically preferred to marry very unattractive women generation after generation, then, because both general intelligence and physical attractiveness are highly heritable, this can explain why very unattractive workers are more intelligent and achieve higher education, thereby earning more. It can also explain why the positive correlation between intelligence and physical attractiveness is not larger despite assortative mating of intelligent men of higher status and physically attractive women over many generations.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17302204

Keywords The Savanna-IQ Interaction Hypothesis, The intelligence paradox, Mate preferences, Evolutionary psychology

## Public health and multiple-phase mortality decline: Evidence from industrializing Japan

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Abstract A growing body of literature shows the mitigating effects of water-supply systems on the mortality rates in large cities, yet the heterogeneities in the effects have been understudied. This study fills in the gap in existing knowledge by providing evidence for non-linearity in the effects of clean water using semiparametric fixed effects approach with city-level nationwide longitudinal dataset between 1922 and 1940, which covers 91% of total city population. According to our baseline estimate, the clean water accounts for approximately 27% of the decrease in the crude death rate in this period. Our results also indicate the heterogeneities in the improving effects of clean water with respect to the coverage of tap water among citizens. We found evidence that the installation of the water-supply system itself decreased waterborne infections and infant mortality but did not substantially improve the overall mortality rate in the initial phase. However, the subsequent expansion of tap water could result in a continuous decline in the overall risk of deaths in the second phase.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17302721

Keywords Water-supply system, Semi/nonparametric estimation, Panel data analysis, Piped water, Public health

## Hungry children age faster

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Abstract We analyze how childhood hunger affects human aging for a panel of European individuals. For this purpose, we use six waves of the Survey of Health, Aging, and Retirement in Europe (SHARE) dataset and construct a health deficit index. Results from log-linear regressions suggest that, on average, elderly European men and women developed about 20 percent more health deficits when they experienced a hunger episode in their childhood. The effect becomes larger when the hunger episode is experienced earlier in childhood. In non-linear regressions (akin to the Gompertz-Makeham law), we obtain greater effects suggesting that health deficits in old age are up to 40 percent higher for children suffering from hunger. The difference of health deficits between hungry and non-hungry individuals increases absolutely and relatively with age. This implies that individuals who suffered from hunger as children age faster.

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Keywords Health, Aging, Health deficit index, Hunger episodes, Childhood health

# Volume 28 – February 2018

## The rise in obesity in Cuba from 2001 to 2010: An analysis of National Survey on Risk Factors and Chronic Diseases data

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Source Economics and Human Biology, February 2018, v. 28, pp.1-13

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Abstract Using two waves of the National Survey on Risk Factors and Chronic Diseases in Cuba, we identify demographic and socioeconomic characteristics associated with obesity among urban adults aged 18+ and decompose the change in obesity within this 9-year period using both the mean-based Blinder-Oaxaca decomposition and a nonlinear approach. Our results reveal significant increases in overweight and obesity (2.3, 3.1, and 7.6 percentage points for BMI-based overweight, BMI-based obesity, and abdominal obesity, respectively). Depending on the decompositional approach and obesity measure, our analysis explains between 13% and 51% of the rise in overweight and obesity, with most part attributable to changes in risky behavior, age, and education. Of particular importance are the large decline in smoking and the population’s changing age structure.

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Keywords Obesity, Decomposition, Cuba

## Food insecurity and child behavior problems in fragile families

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Abstract Food insecurity remains a persistent problem in the United States. Several studies have shown that food insecurity is associated with child externalizing and internalizing behavior problems. However, some potential methodological limitations remain. For example, most studies use a household measure of food insecurity while there is evidence that children, especially younger ones, tend to be shielded by their parents from experiencing food insecurity. In addition, the mechanisms through which food insecurity affects children are not well understood. This study uses longitudinal data from the Fragile Families and Child Wellbeing Study to address these limitations. Fixed-effects models show that the association is even larger using a measure of child food insecurity instead of a household one. Correlated-random effects models show a large difference in child behavior problems between food secure and food insecure children due to unobserved heterogeneity. In addition, the association between child food insecurity and child externalizing behaviors remains largely unexplained while food insecurity among adults explains almost all the variation in the association with child internalizing behaviors. Food insecure children and parents are at risk of micronutrient deficiencies, which may lead to behavior problems in young children. These findings underscore the need for greater focus on reducing the risk of food insecurity, especially for children in fragile families, in order to reduce behavior problems and improve their educational attainment.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300217

Keywords Food insecurity, Child behavior problems, Externalizing behaviors, Internalizing behaviors, Economic hardship

## Age at menarche in Polish University students born before, during and after World War II: Economic effects

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Abstract Although the relationships between economic conditions and biological variables over the past two centuries in Poland are reasonably well-documented, the influence of economic and political disruptions, including nutritional privation, during the years immediately before, during and shortly after World War II (WWII) has received less attention. This paper considers the association between age at menarche and body size of university students born before, during and after WWII and father’s level of education, a commonly used indicator of family economic status in Poland. Subjects were 518 university students surveyed between 1955 and 1972, birth years 1931 through 1951. The sample was divided into three birth cohorts: before (n = 237), during (n = 247) and after (n = 34) WWII. Age at menarche was compared among birth cohorts, and by weight status and father’s level of education. Age at menarche increased slightly but significantly among women born during WWII (14.4 yrs) compared to those born before (14.2 yrs) and after (13.9 yrs) the war. Controlling for year of birth and age of the student, age at menarche was significantly earlier in overweight (13.42 ± 0.35 yrs) than in normal weight (14.33 ± 0.06 yrs) and thin (14.54 ± 0.21 yrs) women. Adjusted mean ages at menarche in small samples of overweight women did not differ by father’s level of education, and were earlier than corresponding ages of thin and normal weight women. Adjusted mean ages at menarche did not differ between thin and normal weight women with fathers having primary or no education, but were slightly later in thin than in normal weight women with fathers having a vocational, secondary or higher education. Although age at menarche was associated with father’s level of education, young adult weight status was a somewhat more important correlate.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301880

Keywords Economy, Weight status, Standard of living, BMI, Father’s education

## Macroeconomic conditions and health: Inspecting the transmission mechanism

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Abstract We study the relationship between macroeconomic conditions and self-reported health in a large sample of Italian individuals, focusing on the mediating role played by health behaviors (smoking, alcohol consumption, physical activity, eating habits) and economic stress. Our findings indicate that, overall, higher local unemployment is negatively related to individuals’ health conditions. A one percentage point increase in the province-level unemployment rate is associated with a significant increase in the probability of experiencing diabetes (0.03 percentage points), infarction (0.01), ulcer (0.06), cirrhosis (0.01) and nervous disorders (0.07), with a time lag that differs across individual health conditions. Employment status and educational level play a significant role as moderators of these relationships. Eating habits, in addition to economic stress, play a key role as mediators, by enhancing the negative relationship between macroeconomic conditions and health outcomes, while physical exercise is found to play a dampening role.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300953

Keywords Economic conditions, Unemployment, Health behaviors, Health outcomes

## Do employers reward physical attractiveness in transition countries?

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Source Economics and Human Biology, February 2018, v. 28, pp.38-52

Publication Date Received 31 October 2016, Revised 20 October 2017, Accepted 20 October 2017, Available online 4 November 2017

Abstract This paper studies the labour market returns to physical attractiveness using data from three transition countries of the Caucasus: Armenia, Azerbaijan and Georgia. I estimate a large positive effect of attractive looks on males’ probability of employment. Results from the most comprehensive model suggest a marginal effect of 11.1 percentage points. Using a partial identification approach, I show that this relationship is likely to be causal. After accounting for covariates, particularly measures of human capital, there is no evidence for a statistically significant link between females’ attractiveness and employment.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.10.002

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301800

Keywords Attractiveness, Employment, Former Soviet Union

## Two by two, inch by inch: Height as an indicator of environmental conditions during childhood and its influence on earnings over the life cycle among twins

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Source Economics and Human Biology, February 2018, v. 28, pp.53-66

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Abstract Adult height is a function of genetic predispositions and environmental influences during childhood. Hence, any variation in height among monozygotic twins, who share genetic predispositions, is bound to reflect differences in their environmental exposure. Therefore, a height premium in earnings among monozygotic twins also reflects such exposure. In this study, we analyze the height premium over the life cycle among Swedish twins, 10,000 of whom are monozygotic. The premium is relatively constant over the life cycle, amounting to 5–6% higher earnings per decimeter for men and less for women, suggesting that environmental conditions in childhood and youth affect earnings over most of the adult life course. The premium is larger below median height for men and above median height for young women. The estimates are similar for monozygotic and dizygotic twins, indicating that environmentally and genetically induced height differences are similarly associated with earnings.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.12.001

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301715

Keywords Height, Life cycle earnings, Childhood environment, Genetics, Twins

## Fertility and the health of children in Indonesia

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Publication Date Received 9 May 2017, Revised 3 December 2017, Accepted 9 December 2017, Available online 13 December 2017

Abstract We analyse the heights of children aged 2 to 12 in the Indonesian Family Life Survey (IFLS) focusing on the effect of the number of children in the family. Previous studies of the trade-off between the quantity of children and some measure of their quality have been much concerned with the endogeneity of fertility choices. Here we use the IFLS for 1993, 1997 and 2000 to exploit some unique institutional features that have influenced fertility. We find evidence that family size is influenced both from the supply side, as represented by components of the Indonesian family planning programme, and on the demand side, as represented by exposure to modern media. We use these variables as instruments for family size in regressions for the height z-scores. We find evidence for a significant negative effect of family size on height in the presence of a range of other influences. An increase of one sibling is associated with a decrease of one third of a standard deviation in the z-score of height. This effect is stronger among families with low-educated mothers and is present in both urban and rural settings.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.12.002

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301090

Keywords Height, Child health, Family economics

## Does integrating AIDS treatment with food assistance affect labor supply? Evidence from Zambia

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Source Economics and Human Biology, February 2018, v. 28, pp.79-91

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Abstract In low income settings, food assistance is increasingly becoming part of AIDS treatment and care programs with the aim of improving adherence to AIDS treatment, enhancing household food security and strengthening economic wellbeing. Yet, evidence of its economic impact is sparse. This paper uses primary data to examine the short term impact of a food assistance program on labor supply as measured by the hours worked, labor market participation rates and transitions to employment within HIV/AIDS affected households in Zambia. We find that food assistance is generally a labor supply disincentive to HIV-infected patients receiving treatment as it reduced their hours worked by up to 54%, transitions to employment by up to 70% and also reduced the labor market participation rates of male patients by 72%. Among non-infected adult family members, there were no significant effects on labor market participation. However, propensity score estimates show that food assistance generally increased the intensity of work by males regardless of the length of AIDS treatment, but for females there was a disincentive effect that disappeared when the patient had spent a longer time on AIDS treatment and was therefore healthier and less likely to be cared for. These findings suggest that food assistance can inadvertently reduce the labor supply of HIV-infected individuals, but this is compensated for by the increased labor supply among other family members.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.11.006

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301107

Keywords AIDS treatment, Food assistance, Labor supply, HIV/AIDS, Zambia

## The intergenerational transmission of obesity: The role of time preferences and self-control

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Abstract Previous research has found that impatient time preferences and self-control problems (present bias) are related to increased obesity risk. However, scant evidence exists pertaining to whether parents’ impatience and self-control problems impact the obesity status of their children, too. Accordingly, we explore this study question among a large national sample of US adults and their children. Study results confirm previous findings indicating that intertemporal preferences are related to adults’ obesity status. Moreover, these results extend the literature by finding that children of impatient or present-biased parents have a significantly higher likelihood of being obese, too. Specifically, parents’ low levels of patience and present bias were each independently related to a five-percentage point increase in the likelihood of obesity of their children. These findings were more pronounced when all children were combined in analyses and for the first child; however, they varied for the second and third child. Thus, findings suggest that parents’ time preferences and self-control problems likely affect not only their own weight status but that of their children.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.12.004

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17302678

Keywords Obesity, Time preferences, Present bias, Intergenerational effects

## Growth and maturity: A quantitative systematic review and network analysis in anthropometric history

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Source Economics and Human Biology, February 2018, v. 28, pp.107-118

Publication Date Received 14 August 2017, Revised 10 December 2017, Accepted 11 December 2017, Available online 16 December 2017

Abstract This paper reviews the current wealth of anthropometric history since the early efforts of Robert Fogel in the 1970s. The survey is based on a quantitative systematic review of the literature and counts a total of 447 peer-reviewed articles being published in the main leading journals in economic history, economics and biology. Data are analysed using network analysis by journal and author and the main contributions of anthropometric history are highlighted, pointing to future areas of inquiry. The contributions of books and book chapters are also quantified and analysed.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17302149

Keywords Height, BMI, History, Anthropometric history, Economic history, Systematic review

## The ‘healthy worker effect’: Do healthy people climb the occupational ladder?

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Abstract The association between occupational status and health has been taken to reveal the presence of occupational health inequalities. However, that interpretation assumes no influence of health status in climbing the occupational ladder. This paper documents evidence of non-negligible returns to occupation status on health (which we refer as ‘healthy worker effect’). We use a unique empirical strategy that addresses the problem of reverse causality. That is, an instrumental variable strategy using the variation in average health in the migrant’s country of origin, a health measure plausibly not determined by the migrant’s occupational status. Our findings suggest that health status exerts significant effects on occupational status in several dimensions; including having a supervising role, worker autonomy, and worker influence. The effect size of health is larger than that of an upper secondary education.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301879

Keywords Occupational status, Self-reported health, Immigrants, Work autonomy, Supervising role

## Parental alcohol consumption and adult children's educational attainment

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Abstract This study analyses whether an excessive parental alcohol consumption during childhood can affect long run children's educational attainments. Using 19 waves of the Russia Longitudinal Monitoring Survey (RLMS), where individuals and their families are followed from childhood to adulthood, this study analyses parental alcohol consumption during childhood (between 1994 and 2001) and its relation with children's educational attainment about twelve years later (from 2005 to 2014). Panel estimations show that mother's excessive alcohol consumption during childhood is consistently negatively associated with children educational outcomes, as years of education, the highest education grade achieved and the probability of having a tertiary education degree, a finding that is robust to possible endogeneity issues. In particular, while moderate drinking is not an issue, an additional standard glass of vodka (15.57 g of pure alcohol) consumed by the mother per day, reduces years of education by almost one year (0.88), and by 5.8 percentage points (or about 27%) the probability of having a university degree. The study also explores the transmission mechanisms suggested by the literature, identifying a significant role for prenatal exposure to alcohol and, to a lesser extent, for intergenerational transmission of drinking habits.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.12.006

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301526

Keywords Alcohol consumption, Children education, Parents problem-drinking, RLMS, Russia

## The effect of social fathers on the cognitive skills of out-of-wedlock children in the U.S.

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Abstract There are two competing views regarding the presence of social fathers on childrens’ cognitive ability: (1) either the social father provides more financial resources which benefit the children or (2) the mother with new partners may shift the focus away from the children. Previous research focused on older children or adolescents and ignored the self-selection problem. We use data from the Fragile Families and Child Wellbeing Study (FFCWS), and a sample of younger children. Using propensity score matching method (nonparametric methods), we find that children with social fathers scored around three points less in a cognitive ability test than children living only with biological mothers (assuming that self-selection is based on observables). The result remains robust when using a control-function analysis (parametric method).

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302106

Keywords Child welfare, Family structure, Fragile families, Non-marital childbearing

## On the distributional and evolutionary nature of the obesity wage penalty

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Source Economics and Human Biology, February 2018, v. 28, pp.160-172

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Abstract The economics literature supports a link between labor market measures, such as earnings, and health conditions, such as obesity. There is reason to believe the effects of obesity on wages may vary for high- and low-earning individuals and that obesity wage effects may evolve over a lifecycle or from generation to generation. Drawing on data from two longitudinal surveys, we estimate quantile and fixed effect quantile regressions, among others, to further examine the obesity wage effect. Results suggest an increasingly severe penalty across the wage distribution for females. Specifically, the highest-earning women may be penalized as much as five times that of the lowest earners. Results for males suggest that penalties may be present at select wage levels, while prior research has generally found no male obesity penalty. We also provide evidence that the obesity penalty has increased across generations and limited evidence that it may slow earnings growth over one’s lifetime.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301089

Keywords Obesity, Earnings, Wage penalty, Longitudinal quantile regression, NLSY79, NLSY97

## Revisiting the impact of macroeconomic conditions on health behaviours

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Publication Date Received 22 May 2017, Revised 24 October 2017, Accepted 6 November 2017, Available online 7 November 2017

Abstract This paper estimates the average population effect of macroeconomic conditions on health behaviours accounting for the heterogeneous impact of the business cycle on individuals. While previous studies use models relying on area-specific unemployment rates to estimate this average effect, this paper employs a model based on area-specific unemployment rates by gender and age group. The rationale for breaking down unemployment rates is that the severity of cyclical upturns and downturns does not only significantly vary across geographical areas, but also across gender and age. The empirical analysis uses microdata from the Italian Multipurpose Household Survey on Everyday Life Issues. The estimates suggest that models employing aggregated and disaggregated unemployment rate measures as a proxy for the business cycle produce similar findings for some health behaviours (such as smoking), whereas different results are obtained for others. While using unemployment rates by gender and age group, fruits and/or vegetables consumption turns out to be procyclical (a 1pp increase in this unemployment rate decreases the probability of consuming at least five daily fruit and/or vegetable servings by 0.0016pp), the opposite effect, though statistically insignificant, is observed once general unemployment rates are used. While both models conclude that physical activity declines during economic downturns, the size of the procyclical effect is much smaller when employing disaggregated rather than aggregated unemployment rates (a 1pp increase in the unemployment rate by gender and age group decreases the probability of doing any physical activity by 0.0017pp).

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.11.001

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301247

Keywords Health behaviours, Unemployment, Business cycle, Italy

# VOLUME 27 – November 2017

## [Business cycle impacts on substance use of adolescents: A multi-country analysis](http://www.sciencedirect.com/science/article/pii/S1570677X16301319)

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Source Economics and Human Biology, November 2017, v. 27, pp.1-11

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Abstract Populations respond to changes in the economic climate in a variety of ways. The recent ‘Great Recession’ has brought attention to the vulnerability of many economies around the world to changes in non-domestic macroeconomic fluctuations. However, empirical evidence on the responses of adolescents’ substance consumption behaviour when the economy deteriorates is very scarce. Thus, the focus of this paper is to analyse the substance consumption patterns displayed by adolescents in response to changes in macroeconomic conditions in a large number of countries. Our results show that beer and wine consumption vary counter-cyclically (a 1pp increase in the unemployment rate increases the probability of drinking beer (wine) by 3% (5.5%)) while adolescent smoking prevalence varies pro-cyclically (a 1pp increase in the unemployment rate decreases the probability of being a current smoker by 3.8%). More importantly, we find that the probability of ever being drunk increases by 1.3% for a 1pp increase in the unemployment rate. Further to this, substantial heterogeneous effects from the aggregate-level results were found when analysing a variety of demographic and geographic dimensions. In light of the existing empirical evidence which outlines that early substance initiators demonstrate worse neurological deficits and suffer stronger labour market penalties (compared to later initiators or abstainers) these findings can aid policy makers in reducing these lasting adverse outcomes.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.04.005

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301319

Keywords Substance consumption; Business cycle conditions; Adolescent's behaviour; Multi-country analysis

## [The association between socioeconomic status and adult fast-food consumption in the U.S.](http://www.sciencedirect.com/science/article/pii/S1570677X16300363)

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Source Economics and Human Biology, November 2017, v. 27, pp.12-25

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Abstract Health follows a socioeconomic status (SES) gradient in developed countries, with disease prevalence falling as SES rises. This pattern is partially attributed to differences in nutritional intake, with the poor eating the least healthy diets. This paper examines whether there is an SES gradient in one specific aspect of nutrition: fast-food consumption. Fast food is generally high in calories and low in nutrients. We use data from the 2008, 2010, and 2012 waves of the National Longitudinal Survey of Youth (NLSY79) to test whether adult fast-food consumption in the United States falls as monetary resources rise (n = 8136). This research uses more recent data than previous fast-food studies and includes a comprehensive measure of wealth in addition to income to measure SES.

We find little evidence of a gradient in adult fast-food consumption with respect to wealth. While adults in the highest quintile are 54.5% less likely to report fast-food consumption than those in the lowest quintile, adults in the second and third quintiles are no less likely to report fast food–food intake than the poorest. Contrary to popular belief, fast-food consumption rises as income rises from the lowest to middle quintiles. The variation in adult fast-food consumption across income and wealth groups is, however, small. Those in the wealthiest quintile ate about one less fast-food meal on average than those in the lowest quintile. Other factors play a bigger role in explaining fast-food consumption: reading ingredient labels is negatively associated while soda consumption and hours of work are positively associated with fast-food consumption.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.04.004

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16300363

Keywords Fast food; Income; Wealth; Socioeconomic status

## [Low expectations: Do teachers underestimate the ability of overweight children or the children of overweight mothers?](http://www.sciencedirect.com/science/article/pii/S1570677X16300624)

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Source Economics and Human Biology, November 2017, v. 27, pp.26-32

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Abstract Using the first wave of the Growing Up in Ireland Survey of nine year old children we examine whether a teacher's assessment of their pupil's academic ability is influenced by the weight status of the child and/or the child's mother. Multivariate regression analyses of the teacher's assessment, controlling for the child's actual test performance, their BMI, their mother's BMI, other socio-demographic and teacher characteristics were undertaken. The study highlighted that child BMI was not a significant determinant but that children whose mother was obese were more likely to be rated as below average in reading and in maths compared to those whose mother was leaner, after adjusting for their measured ability. The potential for mother's weight status to influence teachers’ assessments of their children's perceived ability could have long term ramifications for educational outcomes and warrants further study.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16300624

Keywords Obesity; Parental Body Mass Index; Teacher expectations; Bias assessments

## [The structural relationship between early nutrition, cognitive skills and non-cognitive skills in four developing countries](http://www.sciencedirect.com/science/article/pii/S1570677X17300849)

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Source Economics and Human Biology, November 2017, v. 27, pp.33-54

Publication Date Received 22 June 2015, Revised 22 March 2017, Accepted 7 April 2017, Available online 17 April 2017

Abstract This study provides evidence about how cognitive and non-cognitive skills are acquired during childhood in four developing countries (Ethiopia, India, Peru and Vietnam), highlighting the role of early nutrition as a determinant in this process. An increase of one standard deviation in height-for-age at the age of 1 is found to have a total effect on cognitive skills at age 8 by 5.4 percent in Ethiopia, 9.0 percent in India, 7.6 percent in Peru and 8.4 percent in Vietnam. The corresponding total effect on non-cognitive skills is 1.1 percent in Ethiopia, 3.4 percent in India, 2.6 percent in Peru and 1.7 percent in Vietnam. The evidence suggests the effect of early nutrition on non-cognitive skills is indirect, mediated by cognitive skills. The effect is also relatively small in magnitude.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300849

Keywords Early childhood development; Nutrition; Skills; Children

## [Colonialism and genetics of comparative development](http://www.sciencedirect.com/science/article/pii/S1570677X16302210)

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Source Economics and Human Biology, November 2017, v. 27, pp.55-73

Publication Date Received 5 December 2016, Revised 18 April 2017, Accepted 3 May 2017, Available online 9 May 2017

Abstract This study argues that European colonial policies and former colonies’ genetic variation (genetic distance to Europeans and genetic diversity) were interlinked. Over a prolonged period of time, populations that were genetically far from Europeans and had extreme levels of genetic diversity (e.g. in Sub-Saharan Africa and the Americas) adapted to environments that were significantly different from the climatic conditions of continental Europe. This resulted in a divergence in populations’ resistance to infectious diseases and positive relationships between European settler mortality at the time of colonization, genetic distance to the technological frontier, and genetic diversity. I evaluate the consequences of the aforementioned relationships first, for the role of genetic distance and diversity in development (e.g. Spolaore and Wacziarg, 2009; Ashraf and Galor, 2013), and second, for studies that use European settler mortality as an instrument for institutions (e.g. Acemoglu et al., 2001). The results highlight a potential bias in the estimates of the effect of genetic distance and diversity on contemporary development in a sample of former colonies and suggest that the effect of these measures on current economic and institutional outcomes is indirect and works through Europeans’ colonial policies.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302210

Keywords Economic development; Colonization; Genetic distance; Genetic diversity; Institutions

## [The Association between Height and Hypertension in Indonesia](http://www.sciencedirect.com/science/article/pii/S1570677X1630185X)

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Source Economics and Human Biology, November 2017, v. 27, pp.74-83

Publication Date Received 7 November 2016, Revised 28 March 2017, Accepted 19 April 2017, Available online 8 May 2017

Abstract There is growing interest in the influence of early-life conditions on the development of disease. Among diseases in adulthood, hypertension is particularly important for the developing world because considerably more people there are and will be afflicted with the disease than in the developed world and hypertensives there are often unaware of their disease status. We employed height as a proxy for the influence of early-life conditions and estimated the relation between height and hypertension status in Indonesia. We analysed 9,597 men and 10,143 women, aged 25–70. We employed a linear probability model to relate height to hypertension status by sex and age. When we controlled for an array of covariates, a 10 cm increase in height was related to an approximately 7% point reduction in the likelihood of being hypertensive for both men and women. This is about a quarter of the prevalence of hypertension in Indonesia. This relation was linear and stronger among older individuals. In addition, the pre- and post-pubertal environments (measured by leg and trunk lengths, respectively) contributed similarly to hypertension. Further evidence suggests that women are more likely to be hypertensive at older ages because they are on average shorter than men.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.04.007

Availability https://www.sciencedirect.com/science/article/pii/S1570677X1630185X

Keywords Height; Hypertension; Indonesia; Foetal origins hypothesis

## [The impact of childhood overweight and obesity on healthcare utilization](http://www.sciencedirect.com/science/article/pii/S1570677X16302283)

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Source Economics and Human Biology, November 2017, v. 27, pp.84-92

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Abstract Rising levels of childhood overweight and obesity represent a major global public health challenge. A number of studies have explored the association between childhood overweight and obesity and healthcare utilisation and costs. This paper adds to the literature by estimating the causal effect of child overweight and obesity status on use of general practitioner (GP) and hospital inpatient stays at two time points using instrumental variable (IV) methods The paper uses data from two waves of the Growing Up in Ireland survey of children when they are 9 and 13 years respectively and uses the biological mother’s body mass index (BMI) as an instrument for the child’s BMI. Our results demonstrate that child overweight and obesity status do not have a significant effect on healthcare utilisation for children when they are 9 years, but do have a large and significant effect at 13 years. Across all our models, the effects on both GP and hospital inpatient stays are found to be larger when endogeneity in childhood BMI status is addressed. Previous studies that did not address endogeneity concerns are likely to have significantly underestimated the impact of child overweight and obesity status on healthcare utilisation.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302283

Keywords Overweight and obesity; BMI; Healthcare utilisation; Children; Instrumental variables; Ireland

## [Estimating sibling spillovers in health: Evidence on symptoms](http://www.sciencedirect.com/science/article/pii/S1570677X16300508)

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Source Economics and Human Biology, November 2017, v. 27, pp.93-101

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Abstract This paper estimates the sibling spillover effect in health symptoms using a sample of US adolescents from the National Longitudinal Study of Adolescent Health dataset. The research design of this paper is to restrict the sample to sibling pairs who are separated between schools, where one enters high school and the other middle school. Because of school separation, sibling pairs face independent health shocks from own school peers. The identification strategy further exploits variations in individual health across symptoms to control for unobserved individual heterogeneity, which flexibly partials out family correlated effects. Estimation results show that the sibling spillover effect is large as a one-standard-deviation increase in one sibling's frequency of developing a stomach ache or a loss of appetite increases the other sibling's frequency of having the same symptom by about 55% of a standard deviation. Further investigation suggests that the effect is not due to spillovers in drinking alcohol or depression, but probably due to the spread of contagious illnesses like the stomach flu.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16300508

Keywords

## [Performance of people with diabetes in the labor market: An empirical approach controlling for complications](http://www.sciencedirect.com/science/article/pii/S1570677X16302179)

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Abstract This paper introduces a framework for modelling the impact that diabetes has on employment status and wages, improving the existing literature by controlling for diabetes-related complications. Using the last wave of the Spanish National Health Survey, we find that 1710 adults out of the original sample of 36,087 have diabetes, reporting higher rates of unemployment. Our empirical results suggest that persons with diabetes, compared with non-diabetic persons, have poorer labor outcomes in terms of length of unemployment and lower income. However, diabetes is not significantly associated with unemployment probabilities, suggesting that the burden of diabetes on employment is mediated by lifestyle factors and clinical and functional complications. In addition, there are mixed outcomes to this econometric approach, depending on age and gender, among other factors. This interesting finding has several implications for research and policy on strategies to get lower health inequalities.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302179

Keywords Health; Chronic disease; Diabetes; Earnings; Employment

## [Childhood obesity and maternal education in Ireland](http://www.sciencedirect.com/science/article/pii/S1570677X16301940)

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Abstract This paper analyses the socioeconomic gradient of childhood obesity in Ireland using the Growing Up in Ireland data with three innovations compared to previous work in the area. A different measure of socioeconomic status, maternal education, is employed. In addition, the depth and severity of obesity are examined as well as the incidence. Finally, the use of two waves of longitudinal data permits the analysis of the persistence of obesity. Results show that overall childhood obesity stabilised between the two waves. However the socioeconomic gradient becomes steeper in wave 2 for girls and in particular when depth, severity and persistence of obesity are accounted for. Girls whose mothers fail to complete secondary education are shown to be at a particular disadvantage.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301940

Keywords Obesity; Socioeconomic gradient; Persistence

## [Heterogeneity in the long term health effects of warfare](http://www.sciencedirect.com/science/article/pii/S1570677X16301290)

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Source Economics and Human Biology, November 2017, v. 27, pp.126-136

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Abstract This paper estimates the long-term heterogeneous legacies of exposures to war in utero and during early childhood on height in adulthood. Using a novel dataset on the regional WWII destruction in Germany, combined with the German Socio-Economic Panel (SOEP), we find that individuals who experienced warfare in utero and during childhood are an average of 2 cm shorter as adults, suggesting that the negative scarring effect of WWII dominated the positive effect coming from a selection. Among war survivors, children from less privileged families who resided in highly destroyed regions, particularly girls, suffered the greatest health consequences of warfare. Our analyses also show that wartime children who lost their parents during the war years are an average of 1.3 cm shorter as adults. However, the father’s conscription during WWII had no long-term effect on adult height.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.05.007

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301290

Keywords Warfare; Height; Children

## [Biological welfare and the commons: A natural experiment in the Alps, 1765–1845](http://www.sciencedirect.com/science/article/pii/S1570677X16301745)

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Source Economics and Human Biology, November 2017, v. 27, pp.137-153

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Abstract In the late 18th century hundreds self-governing alpine communities in Northern Italy came under the direct control of centralized states (Austria and France) at different times. We exploit the timing and location of these interventions in a DD type design to investigate the effects of removing CPR institutions on biological welfare. We find a significant and persistent increase in infant mortality rates and a more modest decrease in birth rates as a result of state centralization. We provide evidence that these demographic changes reflect a critical loss of natural resource income caused by the disruption of communal institutions. Impacts are most severe in communities that have no prior experience with formal institutions.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.05.008

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301745

Keywords Common property; Centralization; Infant mortality; Habsburgs; Napoleon

## [The dynamic effects of obesity on the wages of young workers](http://www.sciencedirect.com/science/article/pii/S1570677X16301654)

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Publication Date Received 21 October 2016, Revised 24 March 2017, Accepted 16 May 2017, Available online 8 June 2017

Abstract This paper considers effects of body mass on wages in the years following labor market entry. The preferred models allow current wages to be affected by both past and current body mass, as well as past wages, while also addressing the endogeneity of body mass. I find that a history of severe obesity has a large negative effect on the wages of white men. White women face a penalty for a history of being overweight, with some evidence of additional penalties that begin above the threshold for severe obesity. Furthermore, the effects of past wages on current wages imply that past body mass has additional, indirect effects on wages, especially for white women.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.05.006

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301654

Keywords

## [A compensating income variation approach to valuing 34 health conditions in Iceland](http://www.sciencedirect.com/science/article/pii/S1570677X1630168X)

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Source Economics and Human Biology, November 2017, v. 27, pp.167-183

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Abstract Using data from an Icelandic health-and-lifestyle survey carried out in 2007, 2009, and 2012, we employ a compensating income variation (CIV) approach to estimate the monetary value sufficient to compensate individuals for the presence of various sub-optimal health conditions. This method is inexpensive and easy on subjects and has been applied to several desiderata that do not have revealed market prices. The CIV literature is, however, still limited in its application to health and thus information about its suitability is limited. With the aim of shedding light on the method́s appropriateness we thus provide a broad-view analysis including a spectrum of diseases and conditions that can be held up against more traditionally used methods. CIV for physical conditions vary greatly, but paralysis, fibromyalgia, chronic back pain, rheumatoid arthritis, urinary incontinence, severe headache and thyroid disease were among those consistently associated with substantial well-being reductions. Mental-health results using this method should be read with caution. The societal value of health interventions is multidimensional, including for example increased productivity in the population. However, one of the main positive aspects of increased health is undoubtedly the increased well-being of the treated subjects. Such quality-of-life effects should thus preferably be taken into account. For this reason, information on the value individuals place on recovery from various sub-optimal health conditions is useful when it comes to prioritizing scarce capital in the health sector. It is therefore vital to estimate the importance individuals place on various health states and hold them up against each other. Furthermore, this paper has scientific value as it sheds light on attributes of a potentially useful method in health evaluations.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.06.001

Availability https://www.sciencedirect.com/science/article/pii/S1570677X1630168X

Keywords Iceland; Compensating income variation; Health; Value; Prioritization; Willingness to pay; Indifference; Compensation

## [Multidimensional human capital formation in a developing country: Health, cognition and locus of control in the Philippines](http://www.sciencedirect.com/science/article/pii/S1570677X16302386)

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Abstract Economic success depends on multiple human capital stocks whose production is interrelated and occurs over many life stages. Yet, much empirical work fails to account for human capital's multidimensional nature and limits its focus to specific childhood stages. Using longitudinal data from the Philippines, I estimate a model of multidimensional human capital formation from birth through adulthood where health, cognitive, and noncognitive dimensions are jointly produced. I examine during which developmental stages parental investment is most influential and address the endogeneity of investment using a policy function where investment depends on child characteristics, exogenous conditions at birth and local prices. Findings imply that not only will early human capital disparities persist into adulthood without early remediation but also that cognitive gains yielded from early remediation will be lost without complementary investment in adolescence. Findings further suggest that interventions will be undervalued if their multidimensional effects are not accounted for.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.06.003

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302386

Keywords Human capital; Development; Health; Cognitive ability; Locus of control; Philippines

## [You can be too thin (but not too tall): Social desirability bias in self-reports of weight and height](http://www.sciencedirect.com/science/article/pii/S1570677X1630154X)

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Source Economics and Human Biology, November 2017, v. 27, pp.198-222

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Abstract Previous studies of survey data from the U.S. and other countries find that women tend to understate their body weight on average, while both men and women overstate their height on average. Social norms have been posited as one potential explanation for misreporting of weight and height, but lack of awareness of body weight has been suggested as an alternative explanation, and the evidence presented to date is inconclusive. This paper is the first to offer a theoretical model of self-reporting behavior for weight and height, in which individuals face a tradeoff between reporting an accurate weight (or height) and reporting a socially desirable weight (or height). The model generates testable implications that help us to determine whether self-reporting errors arise because of social desirability bias or instead reflect lack of awareness of body weight and/or other factors. Using data from the National Health and Nutrition Examination Survey (NHANES) from 1999 to 2010, we find that self-reports of weight offer robust evidence of social desirability bias. However, lack of awareness of weight may also contribute to self-reporting biases, and this factor appears to be more important within some demographic groups than others. Among both women and men, self-reports of height exhibit significant social desirability bias only among those of below-average height, and very few individuals underreport their height. Implied self-reports of BMI exhibit gender-specific patterns similar to those observed for self-reporting of weight, and the inferred social norms for BMI (20.8 for women and 24.8 for men) are within the “normal” range established by public health institutions. Determining why individuals misreport their weight has important implications for survey design as well as for clinical practice. For example, our findings suggest that health care providers might take additional steps to increase self-awareness of body weight. The framework also helps to explain previous findings that the degree of self-reporting bias in weight is stronger in telephone surveys than it is in in-person surveys.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X1630154X

Keywords Social norms; Self-reported weight; Height; BMI; Misreporting biases

## [Body mass and wages: New evidence from quantile estimation](http://www.sciencedirect.com/science/article/pii/S1570677X16301320)

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Publication Date Received 20 September 2016, Revised 11 July 2017, Accepted 13 July 2017, Available online 16 July 2017

Abstract I estimate the effect of body mass index (BMI) on wages across the unconditional distribution of wages. I find that for whites and Hispanics the effect of BMI is generally decreasing across the wage distribution; at the .9 quantile of the wage distribution, a two standard deviation increase in BMI reduces wages by 8% for white males, 13% for white females, 9% for Hispanic males, and 16% for Hispanic females. Conversely, at the .1 quantile, a two standard deviation increase in BMI affects wages by less than 2% for all these groups. For black males, the effect of BMI is positive, and either increasing or non-linear in wages. For black females, the estimates tend to be more uniform across the wage distribution. I discuss possible explanations for these inter-quantile differences including preference discrimination, productivity differences, and statistical discrimination. The results point to a new explanation for the observed correlation between socioeconomic status and body weight: individuals with higher income earning potential have differential incentives to maintain a lower BMI.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.07.001

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301320

Keywords Obesity; Quantile regression; Statistical discrimination

## [Recessions and health revisited: New findings for working age adults](http://www.sciencedirect.com/science/article/pii/S1570677X17300230)

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Abstract A series of influential papers have documented that state level mortality rates decrease during economic downturns. In this paper, we estimate the effect of education specific unemployment rates on mortality, which provide a more exact measure of the likelihood of being directly impacted by a recession. We find that the unemployment rate of an education group in a given state is positively related to mortality in that group. A 1% increase in the group-specific unemployment rate is associated with an approximately 0.015% increase in the group-specific mortality rate, which is consistent with the hypothesis that, while state-level unemployment may have indirect health benefits, being personally affected by a recession has a detrimental effect on health.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300230

Keywords Mortality; Unemployment; Recessions

## [Causal effects of HIV on employment status in low-income settings](http://www.sciencedirect.com/science/article/pii/S1570677X16301459)

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Abstract This paper estimates the causal impact of being HIV positive on individual employment status using a recursive bivariate probit with male circumcision as the instrument to overcome the endogeneity arising from simultaneity bias. The results show that being HIV positive reduces the probability of being employed by 5 percentage points among males in Uganda. The effect is greater for individuals employed in manual labor than non-manual labor. When limiting the sample to mainly individuals employed in subsistence agriculture, we find a 4 percentage point reduction in the likelihood of employment, suggesting that the effect occurs primarily through reductions in labor supply as opposed to demand. This is supported by additional analysis using univariate probit regressions to assess the association between different levels of HIV illness (as measured by CD4 cell count) and the likelihood of employment. The magnitude of the association increases as CD4 cell count decreases. Having a CD4 cell count of 200 per mm3 or below is associated with a 9 percentage point reduction in employment compared to individuals with CD4 cell counts above 200 per mm3.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.09.001

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301459

Keywords Employment; HIV/AIDS; CD4; Instrumental variable; Recursive bivariate probit

## [Economic analysis of the link between diet quality and health: Evidence from Kosovo](http://www.sciencedirect.com/science/article/pii/S1570677X17300606)

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Source Economics and Human Biology, November 2017, v. 27, pp.261-274

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Abstract We analyse the link between diet diversity, (which is a proxy of diet quality) and health outcomes measured by body-mass index (BMI) in a representative sample of Kosovar adults using household expenditure micro-data. Building on a household model of health production we devise a two-stage empirical strategy to estimate the determinants of diet diversity and its effect on BMI. Economic factors and demographic characteristics play an important role in the choice of balanced diets. Results from the BMI analysis support the hypothesis that diet diversity is associated with optimal BMI. One standard deviation increase in diet diversity leads to 2.3% increase in BMI of the underweight individuals and to 1.5% reduction in BMI of the obese individuals. The findings have important implications for food security policies aiming at enhancing the public health in Kosovo.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300606

Keywords BMI; Diet diversity; Food security; Diet quality; Health; Kosovo

## [Association between infection burden and adult height](http://www.sciencedirect.com/science/article/pii/S1570677X16302362)

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Abstract Although highly heritable, adult height is also associated with numerous environmental factors, including exposure to infection. Particularly in developing regions of the world, infection burden appears to slow growth during childhood. Using a large database representative of the US population, we examined associations between adult height and leg length and an infection-burden index based on past exposure to Toxocara species, Toxoplasmosis gondii, cytomegalovirus, hepatitis A, hepatitis B, hepatitis C, herpes simplex virus 1, and herpes simplex virus 2. In models controlled for age, sex, educational attainment, socioeconomic status, and race-ethnicity, we found that the infection-burden index predicted height (β = −0.10 [95% CI: −0.15, −0.05], p .001<0.001) but not leg length (β = −0.04 [95% CI: −0.12, 0.04], p = 0.357). Both sex and race-ethnicity moderated this association. In addition, exposures to Toxocara species, cytomegalovirus, and hepatitis A were each individually associated with reduced height and reduced leg length. While associations between growth and infection have been found principally in children in developing regions of the world, our findings suggest that the effects of infection on height may persist into adulthood even in developed nations.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.08.002

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Keywords

## [Cyclical unemployment and infant health](http://www.sciencedirect.com/science/article/pii/S1570677X16301381)

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Abstract This study provides evidence on the effect of cyclical unemployment on infant health. We match individual-level data from a detailed survey of mothers and their children in Memphis, TN, with 5-year average census-tract unemployment rates from the American Community Survey. Our findings indicate that a one percentage point increase in the local unemployment rate is associated with a statistically significant increase in the probability of having a low birthweight baby (a baby weighing less than 2500 grams). We also find evidence of a statistically significant decrease in gestational age. These effects are concentrated among infants born to mothers without a college education and into households earning less than $25,000 a year.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301381

Keywords Unemployment; Recession; Infant Health; Birthweight

## [Big and tall: Does a height premium dwarf an obesity penalty in the labor market?](http://www.sciencedirect.com/science/article/pii/S1570677X17301946)

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Publication Date Received 26 July 2017, Revised 14 September 2017, Accepted 14 September 2017, Available online 17 September 2017

Abstract Previous studies have shown that both height and weight are associated with wages. However, some gaps in our understanding of the relationship between body size and wages remain. For example, given a height premium and an obesity penalty, due to forces working in opposite directions, the current literature is unable to provide clear answers to questions such as whether a tall obese woman or a short healthy weight woman would earn a higher wage premium. Using Australian data and iso-contour wage curves derived from a semi-parametric wage regression model, this paper illustrates the complex nature of the relationship between height, weight and wages and how the nature of these differences depends on gender and age. As adult height is fixed, a key focus of the paper is illustrating for various height ranges whether there are any wage benefits in the labor market to increasing or decreasing one’s weight. For individuals aged 25–54 as a whole, I find that there are strong effects of weight reduction at lower ends of the height distribution for females (between 1.50–1.70 m) but not for males (<1.65 m). For relatively taller men (>1.85 m), a wage premium is found for being overweight. For relatively taller women (>1.72 m), no penalty for being overweight is discernible.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17301946

Keywords BMI; Height; Weight; Wages; Semi-parametric; P-spline

## [The effect of health on socioeconomic status: Using instrumental variables to revisit a successful randomized controlled trial](http://www.sciencedirect.com/science/article/pii/S1570677X17300576)

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Abstract Poor health is widely recognized as a consequence of social disadvantage, but health problems may also help transmit social disadvantage over time and generations. Experimentally assigned health exposures, namely those tested in randomized controlled trials, may provide opportunities to estimate the causal effects of health on socioeconomic status (SES). We revisit data from the Diabetes Control and Complications Trial, a randomized controlled trial of glucose control therapy in Type 1 diabetic patients, and use treatment assignment as an instrument for health status to test the causal effect of treatment-related health improvement on subsequent SES measured during the trial's follow-up study, the Epidemiology of Diabetes Interventions and Complications study. We used the Two-Factor Hollingshead Index of Social Position, which comprises education and occupation, to measure SES. Glycated hemoglobin (HbA1c) served as a proxy for health status. Ordinary least squares (OLS) regression models showed that lower HbA1c at the trial's end was associated with higher SES at both the start of the follow-up and 17 years later. However, instrumental variable analyses showed no causal effect of HbA1c on SES, suggesting that OLS estimates are biased by endogeneity. Sensitivity analyses showed robustness to several alternate specifications. While the HbA1c advantage conferred by random assignment to treatment within the trial did not produce higher Hollingshead Index scores, we note that occupation and education categories may be harder to affect than are outcomes such as income. This analysis offers evidence that clinical trial data may be a rich and unrecognized resource for estimating health effects on SES.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.09.002

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300576

Keywords Clinical trial; Socioeconomic status; Type 1 diabetes; Health; Endogeneity

## [Socioeconomic inequality in excessive body weight in Indonesia](http://www.sciencedirect.com/science/article/pii/S1570677X17300448)

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Source Economics and Human Biology, November 2017, v. 27, pp.315-327

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Abstract Exploiting the Indonesian Family Life Survey (IFLS), this paper studies the transition of socioeconomic-related excess weight disparity, including overweight and obesity, from 1993 to 2014. First, we show that the proportions of overweight and obese people in Indonesia increased rapidly during the time period covered and that poorer groups exhibited a larger annual excess weight growth rate than richer groups (7.49 percent vs. 3.01 percent). Second, by calculating the concentration index, we confirm that the prevalence of obesity affected increasingly poorer segments of Indonesian society. Consequently, the concentration index decreased during the study period, from 0.287 to 0.093. Finally, decomposing the change in the concentration index of excess weight from 2000 to 2014, we show that a large part of the change can be explained by a decrease in the elasticity of wealth and improved sanitary conditions in poorer households. Overall, obesity in Indonesia no longer affects purely the wealthier segments of the population but the entire socioeconomic spectrum.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300448

Keywords Obesity; Overweight; Socioeconomic status; Indonesia; Concentration index; Decomposition

## [Each meal matters in the exposome: Biological and community considerations in fast-food-socioeconomic associations](http://www.sciencedirect.com/science/article/pii/S1570677X17301296)

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Abstract Advances in omics and microbiome technology have transformed the ways in which the biological consequences of life in the ‘ecological theatre' can be visualized. Exposome science examines the total accumulated environmental exposures (both detrimental and beneficial) as a means to understand the response of the ‘total organism to the total environment' over time. The repetitive stimulation of compensatory physiological responses (immune, cardiovascular, neuroendocrine) in response to stress – including sources of stress highly relevant to socioeconomic disadvantage – may lead to metabolic dysregulation and cellular damage, ultimately influencing behavior and disease. The collective toll of physiological wear and tear, known as allostatic load, is not paid equally throughout developed societies. It is paid in excess by the disadvantaged. In the context of fast-food, human and experimental research demonstrates that the biological response to a single fast-food-style meal – especially as mediated by the microbiome- is a product of the person's total lived experience, including the ability to buffer the fast-food meal-induced promotion of inflammation and oxidative stress. Emerging research indicates that each meal and its nutritional context matters. As we discuss, equal weekly visits to major fast-food outlets by the affluent and deprived do not translate into biological equivalency. Hence, debate concerning reducing fast-food outlets through policy – especially in disadvantaged neighborhoods where they are prevalent – requires a biological context. The fast-food establishment and fast-food meal – as they represent matters of food justice and press upon non-communicable disease risk – are far more than physical structures and collections of carbohydrate, fat, sugar and sodium.

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Keywords Food and nutrition; Obesity; Heart disease; Socioeconomic gradient; Health inequities; Social justice; Ecology; Microbiome; Disease prevention; Health policy; Equity; Holism; Health translation; Non-communicable diseases (NCDs); Lifestyle medicine

## [John Komlos, Inas R. Kelly, (Eds.), 2016. The Oxford Handbook of Economics and Human Biology. Oxford University Press, New York. ISBN 978-0-19-93829-2. Pp. xiv + 831.](http://www.sciencedirect.com/science/article/pii/S1570677X17302198)

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Abstract

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Keywords

## [Early life undernutrition and adult height: The Dutch famine of 1944–45](http://www.sciencedirect.com/science/article/pii/S1570677X1630140X)

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Abstract Current research shows strong associations between adult height and several positive outcomes such as higher cognitive skills, better earning capacity, increased chance of marriage and better health. It is therefore relevant to investigate the determinants of adult height. There is mixed evidence on the effects of undernutrition during early life on adult height. Therefore, our study aims at assessing the impact of undernutrition during gestation and at ages younger than 15 on adult height.

We used data from the Longitudinal Aging Study Amsterdam. Exposure to undernutrition was determined by place of residence during the Dutch famine during World War II. Included respondents were born between 15 May 1930 and 1 November 1945 and lived in the northern part of the Netherlands during the famine period (n = 1008). Exposure data was collected using interviews and questionnaires and adult height was measured. Exposed and non-exposed respondents were classified in the age categories pregnancy- age 1 (n = 85), age 1–5 (n = 323), age 6–10 (n = 326) or puberty (age 11–15, n = 274). Linear regression analyses were used to test the associations of adult height with exposure. The robustness of the regression results was tested with sensitivity analyses.

In the models adjusted for covariates (i.e., number of siblings, education level of parents, and year of birth) and stratified by gender, adult height was significantly shorter for females exposed at ages younger than 1 (−4.45 cm [−7.44–−1.47]) or at ages younger than 2 (−4.08 cm [−7.20–−0.94]). The results for males were only borderline significant for exposure under age 1 (−3.16 [−6.82–0.49]) and significant for exposure under age 2 (−4.09 cm [−7.20–−0.96]). Exposure to the Dutch famine at other ages was not consistently significantly associated with adult height.

In terms of public health relevance, the study’s results further underpin the importance of supporting pregnant women and young parents exposed to undernutrition.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X1630140X

Keywords Nutrition in early life; Adult height; Dutch famine; The Netherlands

# VOLUME 26 – August 2017

## [The impact of spousal bereavement on subjective wellbeing: Evidence from the Taiwanese elderly population](http://www.sciencedirect.com/science/article/pii/S1570677X17300138)

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Source Economics and Human Biology, August 2017, v. 26, pp.1-12

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Abstract Bereavement is an inevitable event in our life. This paper employs the Taiwanese panel Survey of Health and Living Status of the Elderly (SHLSE) to evaluate the impact of losing a spouse on self-assessed health and subjective well-being measured by depression and life satisfaction. Propensity score matching methods are used to generate a hypothetical bereavement date and a weight for the non-bereaved to create a comparable non-bereaved cohort and a difference-in-differences (DiD) approach is used to estimate the impact of spousal bereavement.

The results show that spousal bereavement increases depression scale by 1.81 points but this increment decreases by 0.43 points every year after bereavement. It takes approximate 4 years to restore to the level prior to bereavement. We also examine the demographic and socioeconomic differences in the spousal bereavement impact and find that the spousal bereavement impact is greater on the bereaved in the higher income group in terms of self-assessed health and depression. Our results only represent a lower boundary of the possible impact of spousal bereavement on self-assessed health and subjective wellbeing due to data restrictions.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.01.003

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300138

Keywords Spousal bereavement; Difference-in-differences; Subjective wellbeing; Self-assessed health; Depression; Life satisfaction

## [Height premium for job performance](http://www.sciencedirect.com/science/article/pii/S1570677X17300126)

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Source Economics and Human Biology, August 2017, v. 26, pp.13-20

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Abstract This study assessed the relationship of height with wages, using the 1998 and 2012 Korean Labor and Income Panel Study data. The key independent variable was height measured in centimeters, which was included as a series of dummy indicators of height per 5 cm span (<155 cm, 155–160 cm, 160–165 cm, and ≥165 cm for women; <165 cm, 165–170 cm, 170–175 cm, 175–180 cm, and ≥180 cm for men). We controlled for household- and individual-level random effects. We used a random-effect quantile regression model for monthly wages to assess the heterogeneity in the height–wage relationship, across the conditional distribution of monthly wages. We found a non-linear relationship of height with monthly wages. For men, the magnitude of the height wage premium was overall larger at the upper quantile of the conditional distribution of log monthly wages than at the median to low quantile, particularly in professional and semi-professional occupations. The height–wage premium was also larger at the 90th quantile for self-employed women and salaried men. Our findings add a global dimension to the existing evidence on height-wage premium, demonstrating non-linearity in the association between height and wages and heterogeneous changes in the dispersion and direction of the association between height and wages, by wage level.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300126

Keywords Height; Wages; Quantile random-effects model; South Korea

## [Risk aversion and religious behaviour: Analysis using a sample of Danish twins](http://www.sciencedirect.com/science/article/pii/S1570677X16301150)

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Abstract Economics offers an analytical framework to consider human behaviour including religious behaviour. Within the realm of Expected Utility Theory, religious belief and activity could be interpreted as an insurance both for current life events and for afterlife rewards. Based on that framework, we would expect that risk averse individuals would demand a more generous protection plan which they may do by devoting more effort and resources into religious activities such as church attendance and prayer, which seems to be in accordance with previous empirical results. However, a general concern regards the problems of spurious correlations due to underlying omitted or unobservable characteristics shaping both religious activities and risk attitudes. This paper examines empirically the demand for religion by analysing the association between risk attitudes on the one hand, and church attandance and prayer frequency on the other controlling for unobservable variables using survey data of Danish same-sex twin pairs. We verify the correlation between risk preferences and religion found previously by carrying out cross-sectional analyses. We also show that the association between risk attitudes and religious behaviour is driven by the subgroup of individuals who believe in an afterlife. In addition, when re-analysing our results using panel data analyses which cancel out shared factors among twin pairs, we find that the correlation found between risk aversion and religious behaviour is no longer significant indicating that other factors might explain differences in religious behaviour. Caution is needed in the interpretation of our results as the insignificant association between risk aversion and religious behaviour in the panel data analyses potentially might be due to measurement error causing attenuation bias or lack of variation within twin pairs rather than the actual absence of an association.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301150

Keywords Risk preferences; Religious behaviour; Religious belief; Twins; Survey; Expected utility

## [Household food group expenditure patterns are associated with child anthropometry at ages 5, 8 and 12 years in Ethiopia, India, Peru and Vietnam](http://www.sciencedirect.com/science/article/pii/S1570677X16300788)

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Abstract Population-level analysis of dietary influences on nutritional status is challenging in part due to limitations in dietary intake data. Household expenditure surveys, covering recent household expenditures and including key food groups, are routinely conducted in low- and middle-income countries. These data may help identify patterns of food expenditure that relate to child growth.

Objectives

We investigated the relationship between household food expenditures and child growth using factor analysis.

Methods

We used data on 6993 children from Ethiopia, India, Peru and Vietnam at ages 5, 8 and 12y from the Young Lives cohort. We compared associations between household food expenditures and child growth (height-for-age z scores, HAZ; body mass index-for-age z scores, BMI-Z) using total household food expenditures and the “household food group expenditure index” (HFGEI) extracted from household expenditures with factor analysis on the seven food groups in the child dietary diversity scale, controlling for total food expenditures, child dietary diversity, data collection round, rural/urban residence and child sex. We used the HFGEI to capture households’ allocations of their finances across food groups in the context of local food pricing, availability and pReferences

Results

The HFGEI was associated with significant increases in child HAZ in Ethiopia (0.07), India (0.14), and Vietnam (0.07) after adjusting for all control variables. Total food expenditures remained significantly associated with increases in BMI-Z for India (0.15), Peru (0.11) and Vietnam (0.06) after adjusting for study round, HFGEI, dietary diversity, rural residence, and whether the child was female. Dietary diversity was inversely associated with BMI-Z in India and Peru. Mean dietary diversity increased from age 5y to 8y and decreased from age 8y to 12y in all countries.

Conclusion

Household food expenditure data provide insights into household food purchasing patterns that significantly predict HAZ and BMI-Z. Including food expenditure patterns data in analyses may yield important information about child nutritional status and linear growth.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16300788

Keywords Household food expenditures; Child growth; Weight gain; Longitudinal cohort study; Household food purchasing patterns

## [Comparing the role of the height of men and women in the marriage market](http://www.sciencedirect.com/science/article/pii/S1570677X16300831)

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Abstract This paper explores how the role of men and women’s height in the marriage market has changed across generations. Using individual-level data from Japan, we compared the effect of height on marriages between men and women, and investigated how the effect of height on marriage has changed across generations. Our key findings are: (1) for men born before 1965, a 1% increase in height led to an approximately 0.56% increase in the probability of being married. Conversely, for women born before 1965, a 1% increase in height led to an approximately 0.56% decrease in the probability of being married. (2) For men born in or after 1965, a 1% increase in height led to an approximately 1.05% (0.18%) increase (decrease) in the probability of being married (divorced). However, the height effect was not present for women. Japan experienced astounding economic development after World War II, which resulted in changes in its economic and social structure. These changes may have also altered the role of height for Japanese men and women in the marriage market.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16300831

Keywords Marriage market; Height; Preference change

## [Childhood obesity among the poor in Peru: Are there implications for cognitive outcomes?](http://www.sciencedirect.com/science/article/pii/S1570677X17300473)

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Abstract This paper exploits three rounds of panel data provided by the Peruvian dataset of the Young Lives study to investigate the relationship between child cognition and obesity status among the poor. Child weight status is measured by a full distribution of child weight, from severely thin to obese, using data from a z-score for body mass index and cognition is measured by the Spanish version of the Picture Peabody Vocabulary Test (PPVT). This relationship is studied at age five and age eight (school age), and disaggregated across socioeconomic factors of gender, urban/rural setting and indigenous/nonindigenous status. The initial results suggests that obese children have higher cognitive scores and that this result is driven by those who are female, non-indigenous and live in an urban region. However, after correcting for possible bias due to unobservable heterogeneity, there is little evidence of this relationship. The one exception is for a weakly significant relationship between obese female children and higher cognition, a relationship which tends to weaken between the ages of five and eight. On the other end of the weight distribution, indigenous children who are severely thin or thin have significantly lower cognitive scores, a relationship that holds after correcting for possible bias and appears to strengthen between ages of five and eight. This paper contributes to a very small set of literature on child cognition and obesity, points to the importance of controlling for unobserved heterogeneity in estimation, and is the first of its kind to study this relationship in a developing country.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300473

Keywords Child obesity; Child nutrition; Cognition; Peru; Developing country

## [A tall order: Small area mapping and modelling of adult height among Swiss male conscripts](http://www.sciencedirect.com/science/article/pii/S1570677X16300478)

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Abstract Adult height reflects an individual’s socio-economic background and offers insights into the well-being of populations. Height is linked to various health outcomes such as morbidity and mortality and has consequences on the societal level. The aim of this study was to describe small-area variation of height and associated factors among young men in Switzerland.

Data from 175,916 conscripts (aged between 18.50 and 20.50 years) was collected between 2005 and 2011, which represented approximately 90% of the corresponding birth cohorts. These were analysed using Gaussian hierarchical models in a Bayesian framework to investigate the spatial pattern of mean height across postcodes. The models varied both in random effects and degree of adjustment (professional status, area-based socioeconomic position, and language region).

We found a strong spatial structure for mean height across postcodes. The range of height differences between mean postcode level estimates was 3.40 cm according to the best fitting model, with the shorter conscripts coming from the Italian and French speaking parts of Switzerland. There were positive socioeconomic gradients in height at both individual and area-based levels. Spatial patterns for height persisted after adjustment for individual factors, but not when language region was included. Socio-economic position and cultural/natural boundaries such as language borders and mountain passes are shaping patterns of height for Swiss conscripts. Small area mapping of height contributes to the understanding of its cofactors.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16300478

Keywords Stature; Switzerland; Spatial epidemiology; Spatial hierarchical Bayesian analysis; Integrated Nested Laplace approximation

## [Investigating the poverty-obesity paradox in Europe](http://www.sciencedirect.com/science/article/pii/S1570677X16301095)

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Source Economics and Human Biology, August 2017, v. 26, pp.70-85

Publication Date Received 19 August 2016, Revised 21 February 2017, Accepted 22 February 2017, Available online 9 March 2017

Abstract This paper investigates the effect of income- and wealth-based poverty on the probability of being obese for the elderly in Europe by analysing data drawn from the Survey of Health, Ageing and Retirement (SHARE) and the English Longitudinal Study of Ageing (ELSA). We use early-life economic conditions and regional circumstances as instruments for poverty later in life to account for endogeneity issues. After controlling for a large set of covariates at the individual, household, regional and country level, the results show that poverty significantly increases the probability of being obese and the Body Mass Index (BMI), for men and women. The results show that, accounting for endogeneity with a bivariate probit model, poor individuals are from 10 to 20% points more likely to be obese than non-poor individuals. The effect on BMI ranges from 0.295 points (2.39 kg) to 0.395 points (2.75 kg). These results are robust to a series of checks and suggest that anti-poverty interventions might have positive side effects in terms of reducing food-related health inequalities.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301095

Keywords Obesity; BMI; Poverty; Bivariate probit; Instrumental variables

## [Heterogeneity in predictive power of early childhood nutritional indicators for mid-childhood outcomes: Evidence from Vietnam](http://www.sciencedirect.com/science/article/pii/S1570677X1630048X)

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Abstract We utilize longitudinal data on nearly 1800 children in Vietnam to study the predictive power of alternative measures of early childhood undernutrition for outcomes at age eight years: weight-for-age (WAZ8), height-for-age (HAZ8), and education (reading, math and receptive vocabulary). We apply two-stage procedures to derive unpredicted weight gain and height growth in the first year of life. Our estimates show that a standard deviation (SD) increase in birth weight is associated with an increase of 0.14 (standard error [SE]: 0.03) in WAZ8 and 0.12 (SE: 0.02) in HAZ8. These are significantly lower than the corresponding figures for a SD increase in unpredicted weight gain: 0.51 (SE: 0.02) and 0.33 (SE: 0.02).

The heterogeneity of the predictive power of early childhood nutrition indicators for mid-childhood outcomes reflects both life-cycle considerations (prenatal versus postnatal) and the choice of anthropometric measure (height versus weight). Even though all the nutritional indicators that involve postnatal nutritional status are important predictors for all the mid-childhood outcomes, there are some important differences between the indicators on weight and height. The magnitude of associations with the outcomes is one aspect of the heterogeneity. More importantly there is a component of height-for-age z-score (at age 12 months) that adds predictive power for all the mid-childhood outcomes beyond that of birth weight and weight gain in the first year of life.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X1630048X

Keywords Birth weight; Weight gain; Height growth; Child anthropometry; Education; Vietnam

## [Health and weight – gender-specific linkages under heterogeneity, interdependence and resilience factors](http://www.sciencedirect.com/science/article/pii/S1570677X16301046)

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Abstract Many studies have shown that obesity is a serious health problem for our society. Empirical analyses often neglect a number of methodological issues and relevant influences on health. This paper investigates empirically whether neglecting these items leads to systematically different estimates. Based on data from the German Socio-Economic Panel, this study derives the following results. (1) Many combinations of weight and height lead to the same health status. (2) The relationship between health and body mass index is nonlinear. (3) Underweight strengthens individual health and severe obesity has a clear negative impact on health status. Underweight women are more affected than men but obese men are hit harder than women. (4) The hypothesis has to be rejected that weight has an exogenous influence on health. (5) A worse health status is linked with weight fluctuations and deviations between desired and actual working hours. (6) A healthy diet and long but not too long sleeping contribute to a good health status. Moreover, a good parental education and a high parental social status act favorably on health as does personal high income. (7) Four of the big five components of personality, namely openness, extraversion, conscientiousness and agreeableness, contribute to resilience against health problems.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301046

Keywords Body-mass index; Health; Endogeneity; Gender; Individual personality; Smoking; Sleeping; Sporting; Income; Working hours; Parental social status

## [Imperfect information on physical activity and caloric intake](http://www.sciencedirect.com/science/article/pii/S1570677X16300880)

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Source Economics and Human Biology, August 2017, v. 26, pp.112-125

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Abstract Using the National Health and Nutrition Examination Survey Data, I find that individuals who overestimate their activity level by one standard deviation consume 40–60 extra calories per day, or enough to gain five pounds per year. These extra calories are composed mainly of sugar and carbohydrate, and are concentrated among individuals in the 75th and 90th percentiles of caloric intake. The link between overeating and inaccurate estimation of physical activity is strongest among less educated individuals and individuals with high variance in their physical activity, suggesting that imperfect recall or information gaps explain at least part of the relationship of interest. These results imply the existence of a necessary condition for physical activity-based information treatments to be effective in changing health behaviors and obesity rates.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16300880

Keywords Imperfect recall; Health behavior; Body weight

## [The heights of French-Canadian convicts, 1780s–1820s](http://www.sciencedirect.com/science/article/pii/S1570677X17300643)

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Abstract This paper uses a novel dataset of heights collected from the records of the Quebec City prison between 1813 and 1847 to survey the French-Canadian population of Quebec—which was then known either as Lower Canada or Canada East. Using a birth-cohort approach with 10 year birth cohorts from the 1780s to the 1820s, we find that French-Canadian prisoners grew shorter over the period. Through the whole sample period, they were short compared to Americans. However, French-Canadians were taller either than their cousins in France or the inhabitants of Latin America (except Argentinians). In addition to extending anthropometric data in Canada to the 1780s, we are able to extend comparisons between the Old and New Worlds as well as comparisons between North America and Latin America. We highlight the key structural economic changes and shocks and discuss their possible impact on the anthropometric data.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300643

Keywords Canadian economic history; Anthropometric history; Biological living standard

## [The BMI values of the lower classes likely declined during the Great Depression](http://www.sciencedirect.com/science/article/pii/S1570677X16301071)

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Source Economics and Human Biology, August 2017, v. 26, pp.137-143

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Abstract The BMI values of inmates in the McNeil Island Penitentiary in Washington State declined between the 1860s and the 1910s birth cohorts by 1.44. Furthermore, those who were imprisoned in the 1930s had significantly lower BMI values (by between 0.72 and 1.01) than those who were incarcerated at the end of the 19th century. This corresponds to a decrease in weight of some 2.25 kg (4.95 lbs) for a man of average height of 173.86 cm (68.5 inches). The diminution in nutritional status among this lower-class sample is hardly surprising, given the high level of unemployment at the time but has not been verified until now. In marked contrast, the BMI values of Citadel cadets increased by 1.5 units in the 1930s. This divergence in BMI values is most likely due to the different social status, to the different regional origins of the two samples or to both.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301071

Keywords BMI; Weight; Great depression; Biological standard of living; Anthropometrics

## [Obesity and its socioeconomic determinants in Iran](http://www.sciencedirect.com/science/article/pii/S1570677X17300771)

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Source Economics and Human Biology, August 2017, v. 26, pp.144-150

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Abstract Objective

To investigate the socioeconomic inequality of obesity and its determinants in Iran.

Methods

Data was from Iran's surveillance system for risk factors of non-communicable diseases which was conducted on 89,400 individuals aged 15–64 years in 2005. Principal component analysis was used to create a new variable for defining socioeconomic status of participants. We assessed inequality by calculating a slop index of inequality and concentration index for obesity. Oaxaca-Blinder decomposition analysis was used to determine the determinants of inequality.

Results

The slop index of inequality and concentration index for obesity was −13.1 (95% Confidence Intervals [CI]: −16.3 to −9.8) percentage points and −0.123, respectively. The level of inequality varied widely between different provinces in Iran and was more severe in women and urban population. Obesity persisted in 20.2% (95% CI: 19.4–20.9) of the low-socioeconomic group and 11.0% (95% CI: 10.5–11.6) of the high-socioeconomic group. More than 90% of this gap was due to differences of independent variables (mainly age, gender and marital status) in two socioeconomic status groups.

Conclusions

A pro-rich inequality existed in the obesity in Iran. Older age, female gender and rural residency contributed most to the economic inequality of obesity.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300771

Keywords Health surveys; Health status disparities; Inequality; Iran; Socioeconomic factors

## [The contribution of urbanization to non-communicable diseases: Evidence from 173 countries from 1980 to 2008](http://www.sciencedirect.com/science/article/pii/S1570677X17300497)

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Source Economics and Human Biology, August 2017, v. 26, pp.151-163

Publication Date Received 18 February 2017, Revised 19 March 2017, Accepted 19 March 2017, Available online 27 March 2017

Abstract It is widely believed that the expanding burden of non-communicable diseases (NCDs) is in no small part the result of major macro-level determinants. We use a large amount of new data, to explore in particular the role played by urbanization – the process of the population shifting from rural to urban areas within countries – in affecting four important drivers of NCDs world-wide: diabetes prevalence, as well as average body mass index (BMI), total cholesterol level and systolic blood pressure. Urbanization is seen by many as a double-edged sword: while its beneficial economic effects are widely acknowledged, it is commonly alleged to produce adverse side effects for NCD-related health outcomes. In this paper we submit this hypothesis to extensive empirical scrutiny, covering a global set of countries from 1980–2008, and applying a range of estimation procedures. Our results indicate that urbanization appears to have contributed to an increase in average BMI and cholesterol levels: the implied difference in average total cholesterol between the most and the least urbanized countries is 0.40 mmol/L, while people living in the least urbanized countries are also expected to have an up to 2.3 kg/m2 lower BMI than in the most urbanized ones. Moreover, the least urbanized countries are expected to have an up to 3.2 p.p. lower prevalence of diabetes among women. This association is also much stronger in the low and middle-income countries, and is likely to be mediated by energy intake-related variables, such as calorie and fat supply per capita.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.03.004

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300497

Keywords Non-communicable diseases; Hypertension; Cholesterol; Diabetes; BMI; Urbanization

## [Health and income inequalities in Europe: What is the role of circumstances?](http://www.sciencedirect.com/science/article/pii/S1570677X16301885)

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Source Economics and Human Biology, August 2017, v. 26, pp.164-173

Publication Date Received 8 November 2016, Revised 30 March 2017, Available online 17 April 2017

Abstract Equality of opportunity theories distinguish between inequalities due to individual effort and those due to external circumstances. Recent research has shown that half of the variability in income of World population was determined by country of birth and income distribution. Since health and income are generally strictly related, the aim of this paper is to estimate how much variability in income and health is determined by external circumstances. We use data from the Survey of Health, Ageing and Retirement (SHARE) and the English Longitudinal Survey on Ageing (ELSA), two comparable multidisciplinary surveys that provide micro-level data on health and financial resources among the elderly for a large number of European countries. Our baseline estimation shows that about 20% of the variability in income is explained by current country-specific circumstances, while health outcomes range from 12% using BMI to 19% using self-rated health. By including early-life circumstances, the explained variability increases almost 20 percentage points for income and for self-rated health but less for other health outcomes. Finally, by controlling for endogeneity issues linked with effort, our estimates indicate that circumstances better explain variability in health outcomes. Results are robust to some tests, and the implications of these findings are discussed.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301885

Keywords Inequality of opportunity; Health and income inequalities; Early-life circumstances; Social determinants of health; Europe

## [Social capital and cigarette smoking: New empirics featuring the Norwegian HUNT data](http://www.sciencedirect.com/science/article/pii/S1570677X17300862)

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Source Economics and Human Biology, August 2017, v. 26, pp.174-185

Publication Date Received 14 October 2015, Revised 7 April 2017, Accepted 8 April 2017, Available online 14 April 2017

Abstract Using a rich Norwegian longitudinal data set, this study explores the effects of different social capital variables on the probability of cigarette smoking. There are four social capital variables available in two waves of our data set. Our results based on probit (and OLS) analyses (with municipality fixed-effects) show that the likelihood of smoking participation is negatively and significantly associated with social capital attributes, namely, community trust (–0.017), participation in organizational activities (–0.032), and cohabitation (–0.045). Significant negative associations were also observed in panel data, pooled OLS, and random effects models for community trust (–0.024; −0.010) and cohabitation (–0.040; −0.032). Fixed-effects models also showed significant negative effects for cohabitation (–0.018). Estimates of alternative instrumental variables (IV) based on recursive bivariate probit and IV-GMM models also confirmed negative and significant effects for three of its characteristics: cohabitation (–0.030; −0.046), community trust (–0.065; −0.075), and participation in organizational activities (–0.035; −0.046). The limitations of our conclusions are discussed, and the significance of our study for the field of social capital and health is described, along with suggested avenues for future research.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2017.04.003

Availability https://www.sciencedirect.com/science/article/pii/S1570677X17300862

Keywords Cigarette smoking; Social capital; Longitudinal data; Instrumental variables

## [Long-run health consequences of air pollution: Evidence from Indonesia's forest fires of 1997](http://www.sciencedirect.com/science/article/pii/S1570677X16301411)

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Source Economics and Human Biology, August 2017, v. 26, pp.186-198

Publication Date Received 27 September 2016, Revised 10 March 2017, Accepted 12 March 2017, Available online 18 April 2017

Abstract While many studies in the medical literature documented causal relationships between air pollution and negative health outcomes immediately following exposure, much less is known about the long run health consequences of pollution exposure. Using the 1997 Indonesian forest fires as a natural experiment, we estimate the long term effects of air pollution on health outcomes. We take advantage of the longitudinal nature of the Indonesia Family Life Survey (IFLS), which collects detailed individual data on a multitude of health outcomes, in both 1997 and 2007. We find significant negative effects of pollution, which persist in the long run. Men and the elderly are impacted the most, while children seem to recover almost completely from these early shocks. For the entire population, an extra standard deviation in the pollution level increases the likelihood of a poor general health status by almost 3%.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301411

Keywords Air pollution; Health; Indonesia

# VOLUME 25 – May 2017

## [Economics, human biology and inequality: A review of “puzzles” and recent contributions from a Deatonian perspective](http://www.sciencedirect.com/science/article/pii/S1570677X16301691)

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Source Economics and Human Biology, May 2017, v. 25, pp.3-8

Publication Date Received 3 October 2016, Revised 25 October 2016, Accepted 25 October 2016, Available online 18 November 2016

Abstract The Nobel laureate Angus Deaton concentrated his work on puzzling developments and phenomena in economics. Puzzles are exciting elements in economics, because readers feel challenged by the question of how they can be solved. Among the puzzles analyzed by Deaton are: (1) Mortality increase of white, U.S. non-Hispanic men (2000 to today); (2) Why are height and income sometimes closely correlated, but not always?; (3) Height inequality among males and females; and (4) The Indian puzzle of declining consumption of calories during overall expenditure growth.

This article reviews these “puzzles” and the main insights that Deaton derived from their discussion insofar as they pertain to the biological aspects of human development. I will focus on the field of this journal, Economics and Human Biology, in which Deaton has been very active over the last two decades. I will also document some of the responses by other scholars and their contributions to these puzzles, as they relate to the field of economics and human biology.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301691

Keywords Economics; Human Biology; Inequality; Puzzles; Angus Deaton

## [Growing up in wartime: Evidence from the era of two world wars](http://www.sciencedirect.com/science/article/pii/S1570677X16301228)

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Publication Date Received 28 April 2016, Revised 5 September 2016, Accepted 6 September 2016, Available online 16 September 2016

Abstract We document the association between war-related shocks in childhood and adult outcomes for Europeans born during the first half of the twentieth century. Using a variety of data, at both the macro- and the micro-level, we address the following questions: What are the patterns of mortality among Europeans born during this period? Do war-related shocks in childhood and adolescence help predict adult health, human capital and wellbeing of the survivors? Are there differences by sex, socio-economic status in childhood, and age when the shocks occurred? At the macro-level, we show that the secular trend towards lower mortality was interrupted by dramatic increases in mortality during World War I, the Spanish Flu, the Spanish Civil War, and World War II, and we quantify the size of these mortality shocks. Different patterns characterize these high-mortality episodes, with substantial variation by country, sex and age group. At the micro-level, we show that war-related hardship in childhood or adolescence, in particular exposure to war events and experience of hunger, is associated with worse physical and mental health, education, cognitive ability and subjective wellbeing at older ages. The strength of the association differs by sex and type of hardship, with war exposure being more important for females and experience of hunger for males. We also show that hardships matter more if experienced in childhood, and have stronger consequences if they last longer.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301228

Keywords World War I; World War II; Spanish Flu; Adult outcomes; Childhood circumstances; Europe; Human mortality database; SHARE; ELSA

## [Are publicly insured children less likely to be admitted to hospital than the privately insured (and does it matter)?](http://www.sciencedirect.com/science/article/pii/S1570677X16301629)

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Source Economics and Human Biology, May 2017, v. 25, pp.33-51

Publication Date Received 29 April 2016, Revised 20 October 2016, Accepted 20 October 2016, Available online 9 December 2016

Abstract There is continuing controversy about the extent to which publicly insured children are treated differently than privately insured children, and whether differences in treatment matter. We show that on average, hospitals are less likely to admit publicly insured children than privately insured children who present at the ER and the gap grows during high flu weeks, when hospital beds are in high demand. This pattern is present even after controlling for detailed diagnostic categories and hospital fixed effects, but does not appear to have any effect on measurable health outcomes such as repeat ER visits and future hospitalizations. Hence, our results raise the possibility that instead of too few publicly insured children being admitted during high flu weeks, there are too many publicly and privately insured children being admitted most of the time.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2016.10.005

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301629

Keywords Public health insurance; Unnecessary hospitalization; Child hospitalization

## [Height and cognition at work: Labor market productivity in a low income setting](http://www.sciencedirect.com/science/article/pii/S1570677X16301708)

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Source Economics and Human Biology, May 2017, v. 25, pp.52-64

Publication Date Received 14 May 2016, Revised 4 October 2016, Accepted 25 October 2016, Available online 5 November 2016

Abstract Taller workers earn more, particularly in lower income settings. It has been argued that adult height is a marker of strength which is rewarded in the labor market; a proxy for cognitive performance or other dimensions of human capital such as school quality; a proxy for health status; and a proxy for family background and genetic characteristics. As a result, the argument goes, height is rewarded in the labor market because it is an informative signal of worker quality to an employer. It has also been argued that the height premium is driven by occupational and sectoral choice. This paper evaluates the relative importance of these potential mechanisms underlying the link between adult stature and labor market productivity in a specific low income setting, rural Central Java, Indonesia. Drawing on twelve waves of longitudinal survey data, we establish that height predicts hourly earnings after controlling education, multiple indicators of cognitive performance and physical health status, measures of family background, sectoral and occupational choice, as well as local area market characteristics. The height premium is large and significant in both the wage and self-employed sectors indicating height is not only a signal of worker quality to employers. Since adult stature is largely determined in the first few years of life, we conclude that exposures during this critical period have an enduring impact on labor market productivity.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301708

Keywords Height; Cognition; Productivity; Labor markets

## [Child height and intergenerational transmission of health: Evidence from ethnic Indians in England](http://www.sciencedirect.com/science/article/pii/S1570677X16301599)

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Source Economics and Human Biology, May 2017, v. 25, pp.65-84

Publication Date Received 30 April 2016, Revised 17 October 2016, Accepted 17 October 2016, Available online 24 October 2016

Abstract A large literature documents a widespread prevalence of small stature among Indian children as well as adults. We show that a height gap relative to a richer population such as whites in England also exists, although substantially reduced, among adult immigrants of Indian ethnicity in England. This is despite positive height selection into migration, demonstrated by ethnic Indian adults in England being on average 6–7 cm taller than in India. However, the difference between natives and ethnic Indians in England disappears among their younger sons and daughters, although it re-appears among adolescents. We estimate that, conditional on age, gender and parental height, ethnic Indian children of age 2–4 in England are 6–8% taller than in India. Such degree of catch up in one generation is remarkable, also because in England children of ethnic Indians have much smaller birthweight than whites, by about 0.4 kg on average.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2016.10.004

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301599

Keywords Height; Indians; Intergenerational transmission of health; Immigrants

## [Evaluating the role of income, state dependence and individual specific heterogeneity in the determination of subjective health assessments](http://www.sciencedirect.com/science/article/pii/S1570677X16302088)

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Source Economics and Human Biology, May 2017, v. 25, pp.85-93

Publication Date Received 9 May 2016, Revised 21 November 2016, Accepted 21 November 2016, Available online 28 November 2016

Abstract This paper investigates the role of various determinants of an individual's subjective self-assessment of own health. While the economics literature has focused primarily on the role of income on these assessments, we include an examination of the role of state dependence and unobserved individual specific time invariant heterogeneity. We employ a dynamic fixed effects ordered choice model to examine the responses of Australian residents. We find no statistically significant relationship between transitory income and health responses. We also find that while there is evidence of state dependence, this does not appear to be responsible for the distribution of responses. Our results suggest that the variation in the individual specific effects, comprising both observed and unobserved time invariant factors, is primarily responsible for the variation across individuals’ responses.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2016.11.007

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302088

Keywords Subjective health assessments; Non-linear panel data models; Fixed effects

## [Do boys eat better than girls in India? Longitudinal evidence on dietary diversity and food consumption disparities among children and adolescents](http://www.sciencedirect.com/science/article/pii/S1570677X16301666)

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Source Economics and Human Biology, May 2017, v. 25, pp.99-111

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Abstract This paper examines the dynamics of gender-based disparities in the intra-household allocation of food during childhood and adolescence in Andhra Pradesh and Telangana by using three rounds of longitudinal data from two cohorts. While boys are advantaged at all ages (except for the Younger Cohort at 12 years old), the pro-boy gap widens markedly at 15 years old. Specifically, mid-adolescent girls tend to consume fewer protein- and vitamin-rich foods such as eggs, legumes, root vegetables and fruit. This result is robust to gender differences between adolescents in terms of puberty onset, school enrolment, time use and dietary behaviours. Finally, gender disparities in dietary diversity during early and mid-adolescence do not vary by maternal education, poverty or place of residence, whilst they are moderated by levels of caregiver’s educational aspirations at 15 years old.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301666

Keywords Gender; Dietary diversity; India; Intra-household dynamics; Adolescents

# VOLUME 24 – February 2017

## Malarie ecology, child mortality & fertility

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Source Economics and Human Biology, February 2017, v. 24, pp.1-17

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Abstract The broad determinants of fertility are thought to be reasonably well identified by demographers, though the detailed quantitative drivers of fertility levels and changes are less well understood. This paper uses a novel ecological index of malaria transmission to study the effect of child mortality on fertility. We find that temporal variation in the ecology of the disease is well-correlated to mortality, and pernicious malaria conditions lead to higher fertility rates. We then argue that most of this effect occurs through child mortality, and estimate the effect of child mortality changes on fertility. Our findings add to the literature on disease and fertility, and contribute to the suggestive evidence that child mortality reductions have a causal effect on fertility changes.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2016.10.011

Availability http://www.sciencedirect.com/science/article/pii/S1570677X16301782

Keywords Fertility; Mortality; Malaria

## [Stature and long-term labor market outcomes: Evidence using Mendelian randomization](http://www.sciencedirect.com/science/article/pii/S1570677X16300466)

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Source Economics and Human Biology, February 2017, v. 24, pp.18-29

Publication Date Received 3 June 2016, Revised 21 October 2016, Accepted 27 October 2016, Available online 8 November 2016

Abstract We use the Young Finns Study (N = ∼2000) on the measured height linked to register-based long-term labor market outcomes. The data contain six age cohorts (ages 3, 6, 9, 12, 15 and 18, in 1980) with the average age of 31.7, in 2001, and with the female share of 54.7. We find that taller people earn higher earnings according to the ordinary least squares (OLS) estimation. The OLS models show that 10 cm of extra height is associated with 13% higher earnings. We use Mendelian randomization, with the genetic score as an instrumental variable (IV) for height to account for potential confounders that are related to socioeconomic background, early life conditions and parental investments, which are otherwise very difficult to fully account for when using covariates in observational studies. The IV point estimate is much lower and not statistically significant, suggesting that the OLS estimation provides an upward biased estimate for the height premium. Our results show the potential value of using genetic information to gain new insights into the determinants of long-term labor market success.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2016.10.009

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16300466

Keywords Height; Stature; Height premium; Earnings; Employment

## [Effects of state contraceptive insurance mandates](http://www.sciencedirect.com/science/article/pii/S1570677X16301952)

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Source Economics and Human Biology, February 2017, v. 24, pp.30-42

Publication Date Received 13 April 2016, Revised 14 November 2016, Accepted 15 November 2016, Available online 18 November 2016.

Abstract Using U.S. Natality data for 1996 through 2009 and an event analysis specification, we investigate the dynamics of the effects of state insurance contraceptive mandates on births and measures of parental investment: prenatal visits, non-marital childbearing, and risky behaviors during pregnancy. We analyze outcomes separately by age, race, and ethnicity. Among young Hispanic women, we find a 4% decline in the birth rate. There is evidence of a decrease in births to single mothers, consistent with increased wantedness. We also find evidence of selection into motherhood, which could explain the lack of a significant effect on birth outcomes.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2016.11.004

Availability <http://www.sciencedirect.com/science/article/pii/S1570677X16301952>

Keywords Insurance mandate, Contraceptive, Birth rates, Infant health, Economics of the family

## [The effects of prenatal testosterone on wages: Evidence from Russia](http://www.sciencedirect.com/science/article/pii/S1570677X16301903)

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Source Economics and Human Biology, February 2017, v. 24, pp.43-60

Publication Date Received 15 March 2016, Revised 6 October 2016, Accepted 11 November 2016, Available online 19 November 2016

Abstract Is in utero exposure to testosterone correlated with earnings? The question matters for understanding determinants of wage differences that have attracted so much attention among economists in the past decade. Evidence indicates that markers for early testosterone exposure are correlated with traits like risk-taking and aggressiveness. But it is not at all clear how such findings might map into labor market success. We combine unique data from the Russian Longitudinal Monitoring Survey with measured markers (2D:4D ratios) for testosterone exposure and find that lower digit ratios (higher T) correlate with higher wages for women and for men, when controlling for age, education and occupation. There is also some evidence of a potential non-linear, inverse U-effect of digit ratios on wages but this is sensitive to choice of specification. These findings are consistent with earlier work on prenatal T and success in careers (Coates et al., 2009) but inconsistent with the work of Gielen et al. (2016) who find differing effects for men and women.

Digital Object Identifier https://doi.org/10.1016/j.ehb.2016.11.003

Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301903

Keywords In utero; Testosterone; 2D:4D; Wages; Russia

## [Obesity: A major problem for Spanish minors](http://www.sciencedirect.com/science/article/pii/S1570677X16301897)

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Abstract In the last three decades, overweight and obesity levels have more than doubled worldwide, to the point that, in 2014, 39% of the world population aged 18 and over had excess weight and 13% were obese (World Health Organization, 2015). Both overweight and obesity — associated with the deaths of at least 2.8 million adults annually — represent the fifth leading risk factor for death worldwide and are the source of 44% of the diabetes burden, 23% of the ischaemic heart disease burden and between 7% and 41% of certain cancer burdens (World Health Organization, 2012). This “pandemic of the new millennium” (Kimm and Obarzanek, 2002), which affects half of all adults in the WHO European region (World Health Organization, 2006), is responsible for up to 6% of public health expenditure in Europe, leaving aside indirect costs due to loss of life and erosion of productivity and income.

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Keywords Children; Body mass index; Obesity prevalence; Logistic regression; Inequality in obesity prevalence

## [Effects of drought on child health in Marsabit District, Northern Kenya](http://www.sciencedirect.com/science/article/pii/S1570677X16301794)

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Abstract This study uses five years of panel data (2009–2013) for Northern Kenya’s Marsabit district to analyze the levels and extent of malnutrition among children aged five and under in that area. We measure drought based on the standardized normalized difference vegetation index (NDVI) and assess its effect on child health using mid-upper arm circumference (MUAC). The results show that approximately 20 percent of the children in the study area are malnourished and a one standard deviation increase in NDVI z-score decreases the probability of child malnourishment by 12–16 percent. These findings suggest that remote sensing data can be usefully applied to develop and evaluate new interventions to reduce drought effects on child malnutrition, including better coping strategies and improved targeting of food aid.

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Keywords Climate change; Child health; Pastoralists; Livestock

## [Hearing loss and disability exit: Measurement issues and coping strategies](http://www.sciencedirect.com/science/article/pii/S1570677X16302076)

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Abstract Hearing loss is one of the most common conditions related to aging, and previous descriptive evidence links it to early exit from the labor market. These studies are usually based on self-reported hearing difficulties, which are potentially endogenous to labor supply. We use unique representative data collected in the spring of 2005 through in-home interviews. The data contains self-reported functional and clinically-measured hearing ability for a representative sample of the Danish population aged 50–64. We estimate the causal effect of hearing loss on early retirement via disability benefits, taking into account the endogeneity of functional hearing. Our identification strategy involves the simultaneous estimation of labor supply, functional hearing, and coping strategies (i.e. accessing assistive devices at work or informing one’s employer about the problem). We use hearing aids as an instrument for functional hearing. Our main empirical findings are that endogeneity bias is more severe for men than women and that functional hearing problems significantly increase the likelihood of receiving disability benefits for both men and women. However, relative to the baseline the effect is larger for men (47% vs. 20%, respectively). Availability of assistive devices in the workplace decreases the likelihood of receiving disability benefits, whereas informing an employer about hearing problems increases this likelihood.

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Keywords Labor market attachment; Disability exit; Gender differences; Hearing impairment; Coping strategy

## [Parental misclassification of child overweight/obese status: The role of parental education and parental weight status](http://www.sciencedirect.com/science/article/pii/S1570677X16301861)

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Abstract Childhood overweight and obesity is a major public health challenge for policymakers in many countries. As the most common supervisors of children’s activities, parents have a potentially important role to play in obesity prevention. However, a precondition for parents to improve their children’s diets, encourage them to be more physically active, or take them to see a doctor about their weight is for the parent to first recognize that their child is overweight or obese. This paper examines the extent of parental misclassification of child weight status, and its correlates, focusing on the role of parental education and the parent’s own obesity status. We find evidence that, among non-obese parents, those who are better-educated report their child’s weight status more accurately, but among obese parents, the better-educated are 45.18% more likely than parents with lower secondary education to give a false negative report of their child’s overweight/obesity; this may reflect social desirability bias.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16301861

Keywords Child overweight and obesity; Reporting error; Parental misclassification; Education; Social desirability bias

## [The biological standard of living in pre-modern Korea: Determinants of height of militia recruits during the Chosŏn dynasty](http://www.sciencedirect.com/science/article/pii/S1570677X16302180)

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Abstract This paper extends the research on the biological standard of living in the Korean peninsula back to pre-modern times. Drawing on militia rosters of the Chosŏn Dynasty from the sixteenth to eighteenth centuries, we tentatively conclude that the final height of Korean men during this period was 166 cm and thus slightly above that of modern North Korean men (165 cm). On the other hand, the average height of modern South Korean men is 172 cm, 6 cm more than what we tentatively estimate for pre-modern Korean men. Regression analysis of the height of pre-modern Korean men finds that un-free Koreans (“slaves”) were significantly shorter by about 0.6–0.7 cm than commoners, whereas the average height of recruits suffering from smallpox did not differ significantly from that of other recruits. Moreover, regional, as opposed to birth-dummy, variables account, and to a significant degree, for most of the differences in height. Whether or not this is a result of socioeconomic differences across provinces or a result of other regionally-varying factors remains an open question.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302180

Keywords Korea; Asia; Standard of living; Height; Anthropometric history; Economic history

## [The perils of climate change: In utero exposure to temperature variability and birth outcomes in the Andean region](http://www.sciencedirect.com/science/article/pii/S1570677X1630212X)

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Abstract The discussion on the effects of climate change on human activity has primarily focused on how increasing temperature levels can impair human health. However, less attention has been paid to the effect of increased climate variability on health. We investigate how in utero exposure to temperature variability, measured as the fluctuations relative to the historical local temperature mean, affects birth outcomes in the Andean region. Our results suggest that exposure to a temperate one standard deviation relative to the municipality’s long-term temperature mean during pregnancy reduces birth weight by 20 g. and increases the probability a child is born with low birth weight by a 0.7 percentage point. We also explore potential channels driving our results and find some evidence that increased temperature variability can lead to a decrease in health care and increased food insecurity during pregnancy.

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Keywords Climate change; Temperature variability; Birth weight; Health

## [Revisiting the relationship between wages and sleep duration: The role of insomnia](http://www.sciencedirect.com/science/article/pii/S1570677X16302167)

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Abstract This paper uses the 2005 and 2010 Canadian General Social Surveys (Time Use) to investigate the effect of wages on the sleep duration of individuals in the labour force. The endogeneity of wages is taken into account with an instrumental variables approach; we find that the wage rate affects sleeping time in general, corroborating Biddle and Hamermesh’s (1990) main conclusion. A ten percent increase in the wage rate leads to an 11–12 min decrease in sleep per week. But this number masks several effects. The responsiveness of sleep time to wage rate changes depends upon the sex of the individual, whether or not sleep problems are present and general economic conditions. By far the largest adjustment is found for insomniacs in 2010, a year of general economic downturn in Canada. We also investigate the non-randomness of insomnia in the population by using a Heckman procedure, and find that the sleep time of female non-insomniacs is even more responsive to wage rate changes once account is taken of this selection bias, but otherwise selection was not a problem in our samples.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302167

Keywords Sleep duration; Wages; Insomnia

## [The intergenerational transmission of body mass index across countries](http://www.sciencedirect.com/science/article/pii/S1570677X16302064)

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Abstract There is a worldwide epidemic of obesity. We are just beginning to understand its consequences for child obesity. This paper addresses one important component of the crisis; namely the extent to which adiposity, or more specifically, BMI, is passed down from one generation to the next. We find that the intergenerational elasticity of BMI is very similar across countries and relatively constant – at 0.2 per parent. Our substantive finding is that this elasticity is very comparable across time and countries – even if these countries are at very different stages of economic development. Quantile analysis suggests that this intergenerational transmission mechanism is substantively different across the distribution of children’s BMI; more than double for the most obese children what it is for the thinnest children. These findings have important consequences for the health of the world’s children.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302064

Keywords Intergenerational; Body mass index

## [Two worlds apart: Determinants of height in late 18th century central Mexico](http://www.sciencedirect.com/science/article/pii/S1570677X16302313)

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Abstract Anthropometric literature on the American territories of the Hispanic monarchy before their independence is still scarce. We attempt to expand the field with a case study that includes some important novelties.

Albeit our main source, the military records of the Censo de Revillagigedo(conducted in the early 1790s), has already been used, the sample size and the geographical scope are unprecedented: 19,390 males of four ethnicities (castizos, españoles, mestizos, and mulatos) aged from 16 to 39 from 24 localities, including towns and villages scattered across central regions of the Viceroyalty of New Spain. We build a database that, complemented with information on resource endowments obtained from other sources, permits to analyze the determinants of height.

Our results show the importance of spatial differences as well as the significance of ethnicity, occupation, rurality, age and resource endowments as determinants of height. Unprivileged mulatos are only 0.5 cm shorter than, assumedly privileged, españoles in the “first world” (El Bajío) and 1.3 cm taller in the “second world” (Eastern Central Highlands). In turn, living in the “first world” implies being between nearly 1.5 cm and 5 cm taller than the inhabitants of the “second world”. Our estimates of physical statures are placed within an international comparative context and offer a relatively “optimistic” picture.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302313

Keywords Heights, Spanish America; Late pre-independent; Biological; Living standards

## [The effects of prospective mate quality on investments in healthy body weight among single women](http://www.sciencedirect.com/science/article/pii/S1570677X16302301)

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Abstract This paper examines how a single female's investment in healthy body weight is affected by the quality of single males in her marriage market. A principle concern in estimation is the presence of market-level unobserved heterogeneity that may be correlated with changes in single male quality, measured as earning potential. To address this concern, we employ a differencing strategy that normalizes the exercise behaviors of single women to those of their married counterparts. Our main results suggest that when potential mate quality in a marriage market decreases, single black women invest less in healthy body weight. For example, we find that a 10 percentage point increase in the proportion of low quality single black males leads to a 5–10% decrease in vigorous exercise taken by single black females. Results for single white women are qualitatively similar, but not consistent across specifications. These results highlight the relationship between male and female human capital acquisition that is driven by participation in the marriage market. Our results suggest that programs designed to improve the economic prospects of single males may yield positive externalities in the form of improved health behaviors, such as more exercise, particularly for single black females.

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Availability https://www.sciencedirect.com/science/article/pii/S1570677X16302301

Keywords Obesity; Physical activity; Marriage; Matching; Human capital

## [Measuring Up: A History of Living Standards in Mexico, 1850–1950, M. López-Alonso. Stanford University Press, Stanford (2012)](http://www.sciencedirect.com/science/article/pii/S1570677X16301605)

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Abstract Measuring Up presents an engaging, economic history of the biological standard of living in Mexico during the period 1850–1950, with a focus on adult height. In order to explain inequalities in height trends across the population, López-Alonso focuses on two key elements of this history: the institutional structures designed to alleviate poverty, and the population’s overall health and nutritional status. Thanks to this approach, her analysis represents a watershed in the study of the biological standard of living in Mexico and Latin America. Its contribution is threefold: it provides an analysis from an institutional perspective of the potential long-term effects of political struggle on social welfare; it fills a large gap in socioeconomic micro-data analysis at the national level; and it measures the effects of government action (and inaction) on the living standards of the Mexican population.

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Keywords

## [Geographic determinants of individual obesity risk in Spain: A multilevel approach](http://www.sciencedirect.com/science/article/pii/S1570677X1630065X)

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Abstract This paper seeks to understand the determinants of individual body weight status and obesity risk in Spain by concurrently examining individual and regional characteristics. The data are drawn from the National Health Survey of Spain for the year 2011–2012 (INE-National Statistical Institute of Spain) and contain information for a representative sample of 12,671 adults across 50 provinces in Spain. A multilevel analysis is carried out to examine the determinants of individual weight status and obesity, controlling not only for the individual effects and those of the immediate environment but also for the broader setting to which individuals and their immediate environment belong. Our findings suggest that attributes from all three levels of analysis have an effect on individual weight status and obesity. Lack of green spaces and criminality taken as proxies of the social environment positively affect individual and women's BMI and obesity, respectively.

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Keywords BMI; Obesity; Multilevel model; Social environment