Prison and the Colonial Family

Authors:

Hamish Maxwell-Stewart (for correspondence)

Associate Professor School of Humanities

Faculty of Arts

University of Tasmania, Australia

hmaxwell@utas.edu.au

+61 439 115567

Kris Inwood

Professor in Economics and History

University of Guelph, Canada

kinw...@uoguelph.ca

Jim Stankovich

Research Fellow, School of Medicine

Faculty of Health

University of Tasmania, Australia

Jim.Stankovich@utas.edu.au

Prison and the Colonial Family

Abstract

Between 1865 and 1924 descriptions of 39,000 discharged prisoners were circulated via the pages of the *Tasmanian Police Gazette*. This article examines ways in which these detailed records can be used to shed light on childhood experience in this former British penal colony. We compare height measurements for Tasmanian born prisoners with those for British and Irish migrants in order to explore the social and environmental circumstances that helped to shape metropolitan and colonial nineteenth–century family life. The article also examines the extent to which convict transportation advantaged or disadvantaged the growth trajectories of colonially born children. In order to examine this in greater depth we link discharged prison records to birth certificates enabling us to assess the extent to which the occupation of fathers and the district of birth within the colony impacted upon height. We also examine the extent to which children with one or more convict parents were disadvantaged compared to those for whom we could find no evidence of convict ancestry.

Key words: convict transportation, penal colony, anthropometric history, juvenile growth, nineteenth century.

1: Introduction

Much history could be described as an attempt to extract information about private life from public records (Perot, 1990). In this respect the history of the family is no different. A great deal of what historians know about the way in which family life has changed overtime is derived from the analysis of civil birth, death and marriage records, parish registers and census enumerators' returns. It is not an exaggeration to say that the history of the Western family has been constructed largely as a result of the collective sifting of millions of encounters with the state or church. Age at marriage, recorded births, birth intervals, household size and infant mortality rates are all common measures around which the frame of past family life has been painstakingly reconstructed. Judicial and penal records provide opportunities to extend the manner in which public encounters can be used to shed light on the private life of families.

This is particularly the case with Britain's former Australian penal colonies. Prior to 1850 the bulk of working-class people who moved from Europe to Australia were criminals sent into involuntary exile. The journey that they undertook through British and Irish courtroom, prison, hulk and transport vessel was punctuated with official encounters each of which generated paperwork. As the Australian colonies developed this system of bureaucratic surveillance was adapted to cover locally convicted populations. Many former convicts (and, for that matter, free migrants) were measured and described long after they had arrived in the colony. This is also the case with their children and grandchildren. Unlike the British Isles where the size of the population prohibited mass surveillance, written descriptions of prisoners discharged from gaol were routinely circulated from police office to police office. By linking these records to civil registration data it is possible to examine the impact that changing colonial conditions had on family life.

2: Height, health and colonial history

Information about height, routinely recorded in convict and prison records, is particularly useful. While at least 80 per cent of adult height is genetically determined, the inherited propensity to be short or tall is equally distributed across populations (Conley, Strully and Bennett, 2003: 95). Because of this a chart of collective heights of fully—grown individuals of the same sex should be shaped like a bell—a characteristic known as a Gaussian curve after the German mathematician Karl Friedrich Gauss who first noticed the phenomenon (Gordon, 1991: 530). In any given population the number of those who are disproportionately short should be same as the number who are disproportionately tall since, if you fold a Gaussian curve in the middle, the left hand side will exactly mirror the right.

As has long been recognised, there is a marked tendency for those brought up in relatively deprived households to be shorter than those born to better off parents. In nineteenth and early twentieth century Britain, for example, those born in urban areas were seen to be shorter than those brought up in the country. The geographical and social height gradient reflects the environmental conditions encountered in utero and childhood can also have a bearing on adult stature. In other words an individual will only reach their potential biological height if the conditions under which they are nurtured are optimal (Steckel, 1995). For such conditions to be met the diet they receive needs to be nutritionally adequate, or at least sufficient to overcome any environmental insults encountered in an individual's formative years. Childhood

diseases (particularly diarrhoeal diseases), foetal alcohol syndrome, the use of opiate based medicines, lack of exposure to sunshine and stress can all stunt growth, knocking an individual off their genetically programed growth trajectory (Floud, Wachter and Gregory, 1990).

In this sense we are what we eat—with the important proviso that the conditions that we (and our pregnant mothers) encounter also help to make us. Technically the environmental determinants of height can be summarised as nutritional intake (in the form of calories) minus the cumulative effects of disease and other insults. Since the effect of genes that determine that some will be short and others tall tend to cancel each other out across an entire population, fluctuations in mean adult height between generations can be used as a measure of changes in collective foetal and childhood experience. Adult height can thus be used to tell a story about childhood conditions—or as economic historians would put it—a population's nutritional status. Plates emptied by slim pay packets, bacteria passed on a spoon handle from one family member to another, patent medicines used to stupefy crying children and the smog which shut the sun out in some industrial cities, all stunted children. Stature could also be influenced by other environmental circumstances including poor clothing that failed to adequately insulate bodies from the cold and the lack of resources to heat rooms. By contrast, others brought up in more benign conditions were literally given a head start in life (Steckel, 2009).

Height data differs in this respect from other indicators used by historians to try and understand past living standards. Real wage data tells us little about those who were not formally employed. This includes the great proportion of women and children as well as significant numbers of men who laboured on a casual basis (Steckel, 1991). As others have argued 'real wages render the family invisible'. Historical inquiries which rest on the interpretation of such data often assume that families shared resources equally, although there is evidence that when times were tough working class households attempted to protect future income by making sure that bread winners were better fed than other family members (Horrell, Meredith, Oxley, 2009). The analysis of height, by contrast, has the potential to throw considerable light on the history of the family because it captures household circumstances more precisely than information about pay-packets, rents and the cost of living, which while useful measures in themselves, fail to provide a picture of day-to-day family living conditions in the round.

Analysis of the heights of soldiers and prisoners, two populations that were regularly measured, reveal that the children of European emigrants born in colonial environments were usually taller than the equivalent European birth cohorts. North American born troops who fought in the American Revolution towered over their British opponents (Steckel, 1999). The same was true of male prisoners born in New Zealand in the nineteenth century who averaged over 171 cms compared to 166 cms for those incarcerated in Wandsworth Gaol, London (Inwood, Oxley, Roberts, 2010 and Horrell, Meredith, Oxley, 2009).

Even the colonial poor were comparatively well off. There was virtually no difference in height between labourers, artisans and farmers who enlisted in Washington's Continental army, whereas children born into aristocratic families in late eighteenth-century Germany were eight to ten centimetres taller than the children of the poor (Steckel, 1999 and Komlos, 1990). Settler societies have been likened to neo-Europes, places that dramatically expanded the agricultural land available to European colonizing states. Amongst the first to benefit from the proceeds of the 'ghost acres' plundered from colonized people were the families of the European migrants who relocated to the frontiers of empire (Pomeranz, 2001). While there were hardships and dangers associated with trans-oceanic migration, the benefits included lower infection rates and diets that were on average higher in protein and richer in calories than those consumed by Old World working populations.

Yet, by the late nineteenth century the heights of North American settler populations had gone into decline. It was almost as if the sins of the Old World, in the form of the insults that accompanied industrialisation, had caught up with the New. The rapid expansion of North American conurbations impacted upon the welfare of children in similar fashion to the way in which the rise of Manchester, Leeds, Sheffield and Glasgow had already compromised child development in England and Scotland. Economic growth in its eighteenth and nineteenth century form appears to have been literally injurious to the family. Industrialisation led to a deterioration in the quality of the diets of the urban poor, while substandard housing and inadequate sanitation provisions simultaneously increased the burden of disease (Haines, Craig, and Weiss, 2003 and Komlos 1998).

As stature declined on one side of the Atlantic it recovered on the other. In the second half of the nineteenth century improvements in sewerage and water treatment systems eased living conditions in many British cities. At the same time the advent of

freight steamers and the introduction of refrigeration meant that metropolitan populations increasingly benefitted from foodstuffs grown elsewhere although, as the South African War (1899–1902) recruiting statistics revealed, Australians remained taller than working class Britons. Australians who volunteered to serve in South Africa were expected to meet a minimum height standard of 5 feet 6 inches (167.6 cms) as well as having to prove that they could ride and were proficient shots (Whitwell, de Souza and Nicholas, 1997). At 5 feet 5.4 inches (166.1 cms) the average height of British military recruits in 1900 fell below the minimum height set by the Commonwealth Government of Australia (Shee, 1903). Worse still, according to one military authority, only two out of every five British volunteers were 'fit enough to become effective soldiers' (Floud, Wachter and Gregory, 1990: 306).

3: Convict transportation and the family

The extent to which transported convicts and their descendants benefited from forced exile to Australia remains unclear. Many opponents of government policy argued that transportation rewarded those who committed depredations on law—abiding citizens by sending them to a destination where conditions were substantially superior to those experienced by the British and Irish poor (Molesworth, 1838). Defenders of transportation pointed to the hardships that convicts endured, including the loss of British and Irish family and friends and the physically demanding nature of the work they were expected to perform in Australia. While the punishments meted out to convicts who refused to bend their back were severe, beatings of fifty lashes or more were routinely inflicted on those who attempted to run from their place of employment, the rations convicts were provided with were generous by British and Irish working class standards (Nicholas, 1988). Even prisoners in punishment locations received a daily meat quota and those ordered to work for private settlers were provided with more. As the transported ploughman, Richard Dillingham, wrote to his parents:

As to my living I find it better than ever I expected thank God. I want for nothing in that respect. As for tea and sugar I could almost swim in it. I am allowed 2 pounds of sugar and ½ pound of tea per week and plenty of tobacco and good white bread and sometimes beef sometimes mutton and sometimes

pork. This I have every day. Plenty of fruit puddings in the season of all sorts and I have two suits of Cloths a year and three pairs of shoes in a year and I want for nothing but my Liberty ... (Forster, 1970)

The British Quaker George Washington Walker who toured the Australian colonies in 1832-8 concluded that while the health of prisoners was generally inferior to the working classes in England this could be attributed to the dissolute lives they had led prior to be bing transported. He thought that the 'salubrity' of the Australian climate combined with 'the ample allowance of food' and 'moderate labour ... tend in considerable degree to counteract the mischief thus incurred'. Many others concurred that those who had 'left their country for their country's good' had not been unduly disadvantaged by the change in their circumstance.

There is some evidence to suggest that the colonially born sons and daughters of convicts were also better off too. They were certainly taller than their European born parents. This was reflected in the monikers used to describe those of Antipodean birth. In New South Wales the native born were called 'cornstalks' as they were said to grow so fast that they ran up like 'stems of Indian corn', while Tasmanians were referred to as 'barracoutas' after a long and slender fish (Jupp, 2001). Archaeological evidence also suggests that early colonial families were surprisingly well off. The excavation of the Rocks area of Sydney revealed that the families of former convicts grew vegetables and fruit in their back gardens and eat fish from the harbor as well as beef and mutton. These men and women who had been lagged to a penal colony in disgrace possessed other material artifacts, including imported Chinese porcelain, that were unlikely to be found in the British and Irish working class communities from which they had been exiled (Karskens, 1999).

For many it seemed improbable that thieves could produce such fine progeny. As a commentator put it in 1827: 'All our six–feet high native boys and girls have sprung from these "reprobates" (Moloy, 2000: 23). They looked athletic in comparison to free British migrants. As one press report had it 'a native "cornstalk" could take on 'any foreign sapling'. Yet, as the century progressed anecdotal evidence suggests that the children of convicts declined in stature. By the late 1830s they were referred to as 'little ragamuffins'. Tables contrasting the heights of children presented to the Royal Society of Van Diemen's Land in 1849 showed that

those of the 'higher classes' and 'free working people' were taller than those in state care whose parents were convicts.⁴

There are many examples of the children of convicts who ended up before the courts. Newspaper accounts of such encounters can be used to reconstruct the lives of some of these convict progeny in detail. These reconstructed narratives often make grim reading—suggesting that alcohol, lack of employment opportunities and fractured family lives negatively impacted upon many convict descendants. Seth Marley, for example, was brought up "on the Swamp", a waterlogged suburb of Launceston—Tasmania's second largest town. Like most "Swampies" he was of convict descent. His father, John Marley, had been sentenced to transportation for twenty years for stealing silver plate and money and his mother for ten years for stealing a shawl.⁵ Seth was born in 1860. He had two sisters, Jane and, Thomasina born in 1863 and 1866 and a brother, William, born in 1867.

Seth Marley had an eventful childhood. When he was a year old he was attacked by the neighbour's pet magpie. Nine years later he was thrown from a horse after it was struck by a cricket ball and in 1871 he was disfigured for life, losing the tip of his nose, when his sister accidently dropped a light onto a miniature charge he had constructed from gunpowder. He survived these encounters accompanying his parents as they moved from one rented house to another.

Seth's first encounter with the Launceston Municipal Police occurred when he was aged 12. He was cautioned for placing obstructions on the Launceston and Western Railway line. Two years later he was admonished for stealing apples from a garden and when he was 18 he served a three-month stretch for threatening language. By then the Marley children had gained a degree of local notoriety. William Marley was first arrested aged eight. He and his two elder sisters were charged with stealing nine pies from a shop. At the time their mother was serving a sentence for the non-payment of a fine. The court held John Marley responsible for the poor way in which his children had been brought up. He was ordered to enter into a recognisance of £10 for their good behaviour or go to gaol. 10

If John Marley attempted to control the offending of either his children or their mother he failed. The following year Jane was convicted of stealing shawls and throwing stones in the street. She then decamped with her younger sister Thomasina roaming the countryside until they were picked up in Brighton, 108 miles to the south. Charged with being idle and disorderly in wandering about without any fixed

place of abode they were returned to the care of their father.¹² By the time she had turned 16 Tomasina Marley was working as a prostitute having, like her older sister, spent several stints in gaol.¹³

After 1865 descriptions of discharged prisoners, including those for the Marley children, were circulated via the *Tasmanian Police Gazette*, a weekly periodical that contained information of potential interest to the colony's municipal constabulary. In the years to 1924 information about 14,765 Tasmanian born male and 3,339 female discharged prisoners was published in the *Gazette*. As some of these former inmates were convicted and discharged multiple times over the course of their lives, the total number of colonially born individuals who suffered the indignity of having their descriptions circulated was less than these figures imply. We estimate that 9,420 colonially born male prisoners and 2,176 colonially born female were measured at least once.

In addition to the heights of the colonially born the *Tasmanian Police Gazette* also circulated information about migrants to the colony. This included 5,973 prisoners who had been born in Britain and Ireland but had arrived free and 12,949 measurements for transported convicts subsequently reconvicted in a colonial court. This descriptive information was published in order to help police identify offenders.

The heights published in the *Gazette* were recorded to the nearest quarter inch although there was a marked tendency to round, especially to full inches (see Fig. 1), there is little evidence that the reported heights of prisoners were not normally distributed. As a check on the accuracy of the measurement process we compared the heights recorded for prisoners with known multiple conviction histories (roughly onequarter of all prisoners). If a prisoner's stature was reported more than once, we can examine the variation between the two measurements allowing us to identify the extent to which the height recorded for one conviction differed from that of a previous Police Gazette entry. This check was limited to entries in which the prisoner was aged between 21 (when growth should have ceased) and 40 years (before the onset of stature shrinkage). The results reveal significant uniformity in measurement practice. The recorded heights of 64 percent of adult male prisoners and 67 percent of adult females were exactly the same as in the person's previous record. Additionally 15 percent of male and 11 percent of female terminal heights differed by half an inch or less (in other words within the bounds of what might be expected from rounding). While 9.8 differed by more an inch there was no evidence of systematic

over- or under-recording.

We also explored the extent to which variations in recorded stature were the product of changes in the conviction and sentencing policies and reporting rates. While comparison with statistics for the colony as a whole demonstrated that there were significant changes in the proportion of citizens who appeared before the courts over time, the number of custodial sentences awarded, and the proportion of recorded in the *Tasmanian Police Gazette*, we could find no evidence that these variations made a difference to the overall profile of stature by year of birth (Inwood, Maxwell-Stewart, Oxley and Stankovich, forthcoming).

In addition to these populations we will also use information for 47,451 male and 11,087 female convicts measured on arrival in Tasmania between the years 1817 and 1853 and 1,150 Tasmanian born World War I recruits enlisted between 1914 and 1918. The men and women who make up these cohorts were born between 1770 and 1910 in places that were quite literally half a world away. Their comparative height profiles speak volumes about their different fetal, infant, childhood and adolescent experiences. (see Fig.2). The data graphically illustrates the extent to which convicts were shorter than other populations. This is particularly pronounced in adolescence because of the delayed on-set of the juvenile growth spurt for this population—a characteristic feature of growth patterns amongst deprived populations. Unlike contemporary males, convicts also exhibited growth well into their third decade. According to our data they continued to grow until their mid-20s.

Those transported prisoners who were later rearrested, and thus had a second set of measurements circulated via the *Tasmanian Police Gazette*, were shorter still. It is apparent from Figure 1 that convicts with a colonial conviction history were shorter than the mean height for transported convicts as a whole. This difference is unlikely to result from a difference in measuring procedures. Transported convicts are known to have been measured without shoes. While we can find no description of the method used to gather heights for publication in the *Tasmanian Police Gazettes*, it seems unlikely that convicts rearrested in Tasmania were measured with their shoes on since this would have tended to make them taller than the convict population as a whole, rather than shorter. Although some of the difference in stature can be attributed to shrinkage in height in older years, a check against the original height measurements recorded upon arrival in the colony confirms that recidivist transported convicts were short compared to other transported prisoners (Floud, Wachter and

Gregory, 1990: 160 and Cracknell, Inwood and Maxwell-Stewart, 2015).

It is not immediately clear why convicts with a multiple arrest history should have such a marked height disadvantage although others have speculated that since short individuals find it harder to obtain work, they are more likely to be driven into crime (Bodenhorn, Moehling and Price, 2012). An alternative explanation is that short convicts were at greater risk of prosecution—a possibility if being short was a characteristic associated with the likelihood of being a former transported convict. In the colonial world height may have been read as an indicator of a criminal past and therefore might have been used to mark out those of potential interest to the colonial police. Finally prisoners who experienced particularly deprived childhoods may have failed to acquire the skills that would help them to go straight. If they were less likely to be able to read or attain skills that did not fit the requirements of the colonial job market, it is possible that they found it harder to attract marriage partners, establish colonial families and gain secure employment—factors often associated with breaking offending habits (Godfrey, Cox and Farrall, 2007). Another way of putting this is that the consequences of deprivation in the Old World appear to have continued to affect the life courses of transported prisoners long after their arrival in Australia.

As one might expect, those who arrived in Tasmania as free migrants but were subsequently convicted were consistently taller than transported convicts (Fig. 3). This suggests that they were less disadvantaged in childhood although it is also possible that many arrived in Australia when they were still growing and as a result benefitted from superior colonial conditions. Under such circumstances it is possible for juveniles and adolescents to experience 'catch—up growth' as their bodies take advantage of the additional calories supplied by a combination of better diets and a reduction in environmental insults (Tanner, 1981). Regardless of the possible contribution of catch—up growth, however, it is noticeable that as a cohort the free migrants were shorter than the colonially born.

As the bulk of the working class population that arrived in Tasmania prior to the end of transportation in 1853 arrived under sentence, it is probable that the majority of colonially born prisoners had some convict descent (we explore this issue in greater depth later in this article). As such the data suggests that the children and grandchildren of convicts were indeed better off, in terms of physical growth, than if their parents had never been exiled to Australia. Penal transportation may have

conferred an intergenerational advantage to the extent the children of convicts were taller than if they had been born in Britain and Ireland. Colonially born prisoners also reached final adult stature at an earlier age (21 compared to 27), reinforcing the extent to which they received better diets, and or, were exposed to less in the way of disease and other environmental insults.

While they may have experienced better childhood conditions than equivalent age cohorts born in Britain and Ireland, the prisoners discharged from Tasmanian gaols appear short compared to military recruits. Tasmanian born volunteers passed fit for service in the First World War were significantly taller for example (Fig. 3). Some of this difference might be put down to the enforcement of minimum height restrictions for Australian First World War recruits. Analysis of the distribution of the heights of Australian recruits, however, provides little evidence of left side truncation although there is a slight reduction in the number of expected observations below 152.4 centimeters (Cranfield and Inwood, 2015). By contrast occupational data and differences in place of trial and recruitment indicate that a greater proportion of soldiers were born in rural areas compared to prisoners. In addition fewer recruits reported unskilled pre-war occupations compared to those recorded for discharged prisoners. This suggests that, as one might expect, those who had their heights reported in the *Police Gazette* were not representative of the colonial population as a whole. This in itself should not be a concern as long as changes in the manner in which individuals were prosecuted or were selected to have their heights recorded in the *Police Gazette* over time did not impact on the height by year of birth profile for colonially born prisoners. As stated above, we cannot find any indication that this was the case. This disparity in height suggests that colonial Tasmania may have been a less egalitarian place than eighteenth-century British North America, where stature differences amongst those drawn from different classes appear to have been slight (Steckel, 1999).

An examination of the heights of Tasmanian born prisoner by year of birth suggests that stature declined in the early 1840s and did not make a sustained recovery until the mid 1860s. Thereafter it rose rapidly before reaching a plateau in the last decade of the century (Fig. 4). Compared to New Zealand born prisoners of European descent, Tasmanians born in the period 1840–60 lagged behind, although subsequent birth cohorts progressively caught up with their trans—Tasman fellow offenders substantially closing the gap between the two by 1900 (Inwood, Oxley

Roberts. forthcoming). It is possible that these differences result from variations in the operation in the criminal justice system across the two colonies although this is unlikely to explain the manner in which the stature of Tasmanian born prisoners slowly caught up with those born in New Zealand. The stature gap is interesting as Tasmania and New Zealand shared many characteristics. They were both predominantly rural colonies, with mild climates and benign disease environments. They were amongst the few locations in the nineteenth century British Empire where troops were at less risk of death than in their Barracks in England (Curtin, 1989).

These findings are suggestive. While the immediate descendants of convicts appear to have benefitted from New World conditions the stature evidence suggests that conditions faced by colonial families may have declined mid-century compared to comparable settler societies not affected by transportation. It is thus possible that intergenerational stature gains would have been even greater for Tasmanian born children in the absence of convict forced migration. To put this another way, while the process of judicially imposed exile provided the mechanism by which many deprived individuals were relocated to a relatively benign and resource rich environment, the restraints that characterized life in a penal colony may still have prevented the families of migrants (both free and convict) from taking full advantage of these conditions.

A related issue is the extent to which the descendants of convicts were disadvantaged compared to the descendants of free migrants. It was popular in the second half of the nineteenth century to refer to penal transportation as 'that hated stain'—a reference to the blight said to have inflicted on the Australian colonies by the forced migration of British and Irish convicts (Reynolds, 1969). If knowledge of convict identity was widespread it is possible that the opprobrium associated with having transported parents led to the stratification of colonial society according to the manner in which an individual's ancestors had arrived.

There are some worrying indicators that this indeed may have been the case. Colonial prisoners with a history of multiple conviction were shorter than those for whom only one discharge record could be located. These findings mirror those for former convicts with a record of colonial reconviction who were short compared to the transported population as a whole. In the case of the colonially born, however, the association between stature and a history of life course offending was established at an early age. As Fig. 5 suggests, repeat offenders were shorter and arguably more

likely to have been brought up in disadvantaged homes. The Marley children may in this sense be representative of a wider problem. If former convicts found it difficult to adequately feed, clothe, house and protect their children from other environmental insults as a result of their social and economic circumstances, such disadvantage is likely to have been inter–generationally transmitted. It is thus not difficult to think of circumstances by which convict origins helped to lock an underclass into a pattern of relative childhood deprivation accompanied by a higher risk of offending and resultant institutionalization—effects that impacted on multiple generations of the same family (Williams and Godfrey, forthcoming).

Many colonial observers not only thought this was the case but were blunt about the mechanisms which drove intergenerational offending. They argued that the fault lay with the convicts who were feckless and as a result made bad parents. As one settler argued if a free colonist married 'his family produces wealth to the state', but by contrast convict families produced 'an equal degree of evil' (Henderson, 1832: 33). By mid-century it was common to see convicts as a source of contamination that could spread criminal vice to others—a process that could include intergenerational transmission. As the *Bathurst Free Press and Mining Journal* reported, transportation led to the 'transmission from parents to progeny of depraved habits and felonious proclivities.' 14

One way of measuring the extent to which the descendants of convicts were disadvantaged is to examine if children of convicts were shorter than those whose parents were free of the 'stain'. In order to explore this possibility we linked 6,091 discharge records (representing 3,908 unique individuals) to the colony's register of civil births for the years 1838–99. This provides information on the date of birth, the place of birth registration, the names of each prisoner's parents and the occupation of each prisoner's father. This information is then used to identify prisoners who had one or more parents listed in the convict permission to marry registers. Any transported convict who was still serving a sentence and wished to marry had to apply for permission to do so. While many former convicts waited until they were free to solemnize their relationship, the existence of the permission to marry registers provided a relatively easy means of identifying a large subset of prisoners with at least one known parent who had been transported as a convict. In all 90 per cent of convict women who can be traced to a marriage and 50 per cent of men were named in the permission to marry registers. To date we have been able to

identify 248 individual discharged prisoners who had a mother who had been transported, 230 who had a father and 150 for whom both parents had served a convict sentence.

The linked dataset contained information for both sexes and for prisoners aged between eight and 70. The birth registers allow us to estimate more accurately the age of each individual (cross checking with the birth registers revealed that the *Tasmania Police Gazette* tended to slightly overestimate the ages of prisoners, particularly children). We then use the new information to calculate z-scores for all arrest records for the 3,908 prisoners whom we had linked to a birth record. This technique provides us with a statistical measure of the extent to which each prisoner's recorded height differed from the mean for their sex and age within the dataset as a whole.¹⁷

We then regress height (represented as a z-score) on possible determinants including year of birth, occupational class, birth location and a marker identifying if the individual is known to have had multiple convictions (Table 1). The comparative category in this model was male prisoners born in Hobart whose fathers were recorded as labourers and for whom we had no record that either parent had been transported as a convict. The results reveal the extent to which other prisoners were better or worse off than this reference population.

The findings were unexpected. Despite the colony's reputation as a quiet backwater, children born in Hobart and Launceston had lower than average z-scores. Just like in industrializing Britain, Tasmania had a geographical height gradient. Being born in the rural south or the north—west of the colony bestowed a particularly strong, and statistically significant, advantage. The penalty associated with being born in Launceston was greater than that for Hobart, although this result was not statistically significant. What is surprising about this was that both towns were relatively small. Even in 1891, Hobart had under 25,000 inhabitants and Launceston just 17,000. We can find no evidence that food prices were greater in Tasmanian towns, although it is possible that rural families found it easier to supplement diets through hunting and trapping. Infant mortality rates suggest that there was considerable disadvantage to being born in a town. As late as 1891 the death rate for infants under the age of six in Hobart was 46.55 per 1,000 and 42.21 per 1,000 for Launceston compared to 21.70 per 1,000 for rural areas (Tasmanian Government, 1891: 130). While these were small conurbations compared to the likes of

Manchester, Leeds and Liverpool they were nevertheless comparatively unhealthy places to raise a family.

Prisoners whose fathers were recorded as labourers do not appear to have been particularly disadvantaged. Indeed, they appear to have enjoyed a better start in life than prisoners whose fathers' were recorded as shoemakers, construction workers and tailors. This might be because there was less continuity of employment amongst many skilled and semi-skilled trades. These findings resonate strongly with the claims made by the urban-based artisanal agitators who made a significant contribution to the anti-transportation movement. A feature of the transportation system was that convict labourers were permitted to work for colonial employers for what amounted to minimal wages. As a result of the competition with convicts free wages declined over the period 1820 to 1850—a trend which became increasingly pronounced after 1830 (Hartwell, 1954). The transported 'Tolpuddle martyr', George Loveless, refuted contemporary claims that Tasmania was an emigrant worker's paradise. He described labour relations between free women and Hobart employers in the following terms. 'Dissatisfaction arise between them and their employers—they talk of leaving. "you may go," is the reply; "we can get plenty of government servants without paying them wages" (Loveless, 1838).

Competition from assigned mechanics was a major impetus for the initiation of artisan political agitation from the 1830s on. The impact of convict labour on free wages became particularly acute in the 1840s depression when a backlog of convict labour built up in government depots providing colonial employers with even greater choice (Quinlan, 1986). Demand for labour was so weak that the government had difficulty in persuading settlers to hire convicts at minimal rates, let alone employ free workers on full wages.

High levels of unemployment and under-employment appear to have impacted on colonial growth trajectories. Prisoners born in Tasmania in the 1840s were particularly short. As the speakers at meetings of 'free mechanics and operatives' called in Hobart and Launceston stressed, these were hard times 'for a man who has a family to support by his labour'. Free workers were urged to take action so that 'our children will not have to exclaim against us at a future day'. ¹⁸

One reason why the children of Tasmania labourers were taller than urban artisans may have been that many were born in rural areas in which families had access to supplementary foodstuffs. There is a long history of wallaby snaring and

shooting in Tasmania. As Boyce has pointed out, access to the Tasmanian commons, is likely to have put greater amounts of protein on the tables of the colonial rural working class than was the case amongst their British and Irish compatriots (Boyce, 2008). Informal means of supplementing family diets may well explain some of the variations in height exhibited by colonially born prisoners.

Perhaps the largest surprise in our estimation is the lack of evidence indicating some disadvantage for the children of known convicts. In fact, contrary to the qualitative evidence, our data suggest prisoners with one or more transported parents had a better than average z-score. This was particularly the case for children with convict mothers—a result which was significant at the one per cent level. Neither do we find evidence that the children of former convicts were likely to have a worse record of multiple conviction. Despite colonial middle class fears, transportation does not appear to have exposed Australian society to an inter-generationally transmitted delinquency problem.

4: Conclusion

These results tend to support the arguments of Braithwaite, a criminologist who posited that the Australian convict system, unlike prison, socialized convicts into colonial labour markets (Braithwaite, 2001). Under the assignment system that operated from the early 1820s until 1840 newly arrived convicts were routinely sent to work in the private sector. Although they were not paid wages, colonial employers had to feed, clothe and house their unfree charges. After 1840 this system was modified in order to placate the opponents of transportation who argued assignment closely resembled slavery. Under the new probation system convicts had to negotiate a stint in a government labour gang before becoming eligible to sign a labour contract with a private sector employer. They were now paid a wage, although it fell below the level at which free workers were remunerated (Meredith and Oxley, 2005).

While both systems were exploitative, it is conceivable that they helped former convicts find work after sentence since they provided the opportunity to establish relationships with colonial employers and gain work experience before transitioning to freedom. Braithwaite argued that in this respect transportation held distinct advantages over penal regimes that sought to isolate prisoners by locking them up in institutions. Such exclusion-based punishment systems typically have high

reoffending rates, a reflection of the difficulty former inmates encounter in securing post-release employment. In short he argues that whereas prisons and penitentiaries helped to stigmatize prisoners, transportation was an inclusionary system that aided post-sentence integration into the wider economy and society.

It is possible that transportation even conferred an advantage over other forms of migration in that those who arrived free received little by way of colonial assistance. Unlike convicts they were not supplied with a ration, and had little opportunity to form prior relationships with employers. They are also unlikely to have had access to reliable information about wage rates and other local conditions, weakening their bargaining position. Thus, it is plausible that former convicts exiting punishment and transitioning to freedom had better access to the social and economic capital necessary for successful colonial family formation.

A peculiar feature of our results is that better than average z-scores are associated in particular with children born to convict mothers. There are particular reasons why the children born to transported women might have been advantaged. A shortage of women in the Australian colonies meant that domestic servants were hard to obtain. In order to supply the demand for house servants female convicts were prevented from marrying until late in their sentence and those that fell pregnant out of marriage were punished (Reid, 2008). As result the majority of convict women were forced to delay colonial family formation until they had served out the bulk of the time they had been sentenced to transportation. The resultant reduction in fertility impacted upon family size. The mean number of births per marriage involving a convict or former convict women was slightly more than one (Cowley, 2005: 279 and Cowley and Snowden, 2013: 197). As others have argued, a reduction in family size is likely to have contributed to a gain in stature since there were comparatively more resources available per family member (Bailey, Hatton, Inwood, 2014). The irony here is that a regressive measure designed to extract labour from convict bodies may have had unintended beneficial consequences for children brought up in former convict households. To this extent the Marley children, all of whom were short for their age, appear to have led lives that were exceptional rather than typical of those experienced by the children of transported convicts. We can find no evidence that the shackles that encumbered the legs of their parents' retarded the growth of colonial children of convict descent

This is an argument that needs to be qualified in two important ways. While

many female convicts married, only a quarter of convict men appear to have found a partner to accompany them down the aisle, although many chose to cohabit. The difference in male and female convict marriage rates illustrates the profound colonial imbalance in the sexes. The convict men who did marry are likely to be those who transitioned through a sentence to transportation relatively quickly, accumulating few punishments and acquiring in the process the necessary skills and contacts to secure post release employment. In other words, while the majority of convicts might have found the process of adjusting to post emancipation conditions difficult, those that were in the best position to negotiate such hurdles were those most likely to raise families (Maxwell–Stewart, 2014).

In contrast to children born to married convict women, the illegitimate offspring of convicts still under sentence are unlikely to have fared so well. The state policed the sexual relations of convicts under sentence and this was particularly true of female convicts. The measures designed to keep female convicted labour available for service in colonial settler households are likely to have impacted on the children of unmarried convict mothers. Convict women who fell pregnant out of wedlock were institutionalized and separated from their children post weaning. The later were raised in institutions (Frost, 2012). It was these convict off-spring that an 1849 Royal Society report identified as being particularly short.

In other words, attempts at convict family formation were not treated equally. Those who tried to marry without state sanction are likely to have experienced penalties that were severe enough to significantly compromise the growth of their children. By contrast those who waited to marry were able to raise families unencumbered by the threat that their offspring would be forcibly removed. Small family size and local employment opportunities meant that children raised in these households experienced relatively benign conditions.

Table 1:

References

Bailey, R. E., Hatton, T., Inwood, I. (2014). Height, Health and the Household at the turn of the 10th Century ***

Bodenhorn, H., Moehling, C. and Price, G. N. (2012). Short Criminals: Stature and Crime in Early America. *Journal of Law and Economics*, 55, 2, 393–419.

Braithwaite, J. (2001). Crime in the Convict Republic. The Modern Law Review, 64, 11–50.

Boyce, J. (2008). Van Diemen's Land. Melbourne, Black Inc.

Conley, D., Strully, K. and Bennett N. (2003). *The Starting Gate: Birth Weight and Life Chances*. Berkeley, University of California.

Cowley, T. (2005). A Drift of Derwent Ducks. Hobart, Research Tasmania.

Cowley, T. and Snowden D. (2013). Patchwork Prisoners. Hobart, Research Tasmania.

Cracknell, M., Inwood, K. and Maxwell-Stewart, H. (2015). Height, Crime and Colonial History, *Law Crime and History* (forthcoming)

Cranfield, J. and Inwood, K. (2015) A Tale of Two Armies: The Stature of Australian and Canadian Soldiers in World War One, Australian Economic History Review (forthcoming)

Curtin, P. D. (1989). Death by Migration: Europe's Encounter with the Tropical World in the Nineteenth Century. Cambridge, Cambridge University Press.

Floud, R., Wachter, G., Gregory, A. (1990). *Height, Health and History: Nutritional Status in the United Kingdom 1750–1980.* Cambridge, Cambridge University Press.

Floud, R., Fogel, W., Harris, B. and Hong, S. C. (2011). *The Changing Body Health, Nutrition, and Human Development in the Western World Since 1700*. Cambridge, Cambridge University Press.

Forster, H. W. (1970). The Dillingham Convict Letters. Cypress Books, Melbourne.

Frost, L. (2012). Abandoned Women: Scottish Convicts Exiled Beyond the Seas. Sydney, Allen and Unwin.

Godfrey, B., Cox, D. and Farrall, S. (2007). *Criminal Lives: Family Life Employment and Offending*. Oxford, Oxford University Press.

Gordon, H. S. (1991). The History and Philosophy of Social Science. London, Routledge.

Haines, M.R., Craig, L.A. and Weiss, T. (2003). The Short and the Dead: Nutrition, Mortality, and the "Antebellum Puzzle" in the United States. *Journal of Economic History*, 63, 382–413.

Hartwell, R. M. (1954). *The Economic Development of Van Diemen's Land* 1820–1950. Melbourne, Melbourne University Press.

Health and Social Care Information Centre (2010). *Health Survey for England – 2009, Health and Lifestyles*. Leeds, HSCIC.

Henderson, J. (1832). Observations on the Colonies of New South Wales and Van Diemen's Land. Calcutta, Baptist Mission Press.

Horrell, S., Meredith, D. and Oxley, D. (2009). Measuring misery: Body mass, ageing and gender inequality in Victorian London. *Explorations in Economic History*, 46, 93–119.

Inwood, K., Maxwell-Stewart, H., Oxley, D. and Stankovich, M. (forthcoming) Growing Incomes, Growing People in Nineteenth-Century Tasmania, *Australian Economic History Review*.

Inwood, K., Oxley, L., Roberts, E. (2010). Physical Stature in Nineteenth–Century New Zealand: A Preliminary Interpretation. *Australian Economic History Review*, 50, 3, 262–283.

Inwood, K., Oxley, L., Roberts, E. (forthcoming). Physical Growth and Ethnic Inequality in New Zealand Prisons, 1840–1975. *History of the Family*

Jupp, J. (2001). *The Australian People: An Encyclopedia of the Nation, Its People and Their Origins*. Cambridge, Cambridge University Press.

Karskens, G. (1999). *Inside the Rocks: The Archaeology of a Neighbourhood*. Sydney, Hale & Iremonger.

Komlos, J. (1998). Shrinking in a Growing Economy? The Mystery of Physical Stature During the Industrial Revolution. *Journal of Economic History*, 58, 779–802.

Komlos, J. (1990). Height and Social Status in Eighteenth-Century Germany. *Journal of Interdisciplinary History*, 20, 607-21.

Loveless, G. (1838). The Victims of Wiggery. London, Central Dorchester Committee.

Maxwell–Stewart, H. (2014). 'And All My Great Hardships Endured'? Irish Convicts in Van Diemen's Land. In N. Whelehan (Ed.), *Beyond the Island: Transnational Perspectives in Modern Irish History* (48–60) London, Routledge.

Meredith D. and Oxley, D. (2005). Contracting Convicts, The Convict Labour Market in Van Diemen's Land 1840–57. *Australian Economic History Review*, 45, 1, 45–72.

Moloy, J. (2000). *The Native–Born: The First White Australians*. Melbourne, Melbourne University Press.

Molesworth, W. (1838). Report from the the Select Committee of the House of Commons on Transportation; Together with a Letter from the Archbishop of Dublin on the Same Subject: And Notes by Sir William Molesworth, BART., Chairman of the Committee. London, Henry Hooper.

Nicholas, S. (1988). The Care and Feeding of Convicts. In S. Nicholas (Ed.) *Convict Workers: Reinterpreting Australia's Past* (180–189). Cambridge: Cambridge University Press.

Perot, M. (Ed.). (1990). History of Private Life, Volume IV: From the Fires of Revolution to the Great War. Harvard: Harvard University Press.

Pink, K. (1982). The West Coast Story, a history of Western Tasmania and its Mining Fields. Zeehan, West Coast Pioneers' Memorial Museum.

Pomeranz, K. (2001). *The Great Divergence: China, Europe and the Making of the World Economy*. Princeton, Princeton University Press.

Quinlin, M. (1986). Trade Unionism and industrial Action in Tasmania 1830-1850. *Tasmanian Historical Research Association: Papers and Proceedings*. 3, 1, 8–31.

Reid, K. (2008). *Gender, Crime and Empire: Convicts, Settlers and State in Early Colonial Australia*. Manchester, Manchester University Press.

Reynolds, H. (1969). 'That Hated Stain': Then Aftermath of Transportation in Tasmania. *Australian Historical Studies*, 14, 19–31.

Shee, G. F. (1903). The Deterioration in National Physique. Nineteenth Century, 53, 798-801.

Steckel, R. S. (1992). Stature and Living Standards in the United States. In R. E. Gallman and J. J. Wallis (Eds.), *American Economic Growth and Standards of Living Before the Civil War* (265–308). Chicago, University of Chicago Press.

Steckel, R. S. (1995). Stature & the standard of living. Journal of Economic Literature, 33, 1903-1940.

Steckel, R. S. (1999). Nutritional Status in the Colonial American Economy. *The William and Mary Quarterly*, 3rd series, 56, 1, 31–52.

Steckel, R. S. (2009). Heights and human welfare: Recent developments and new directions. *Explorations in Economic History*, 46, 1, 1–23.

Tanner, J. M. (1981). A History of the Study of Human Growth. Cambridge, Cambridge University Press.

Tasmanian Government (1891). Statistics of Tasmania for the Year 1891. Government Printer, Hobart.

Whitwell, G., de Souza, C., and Nicholas, S. (1997). Height, Health, and Economic Growth in Australia, 1860-1940, in R. H. Steckel and R. Floud (Eds.) *Height and Welfare During Industrialisation* (379–413). Chicago, University of Chicago Press.

Williams, L. and Godfrey, B. (forthcoming). Intergenerational offending in Liverpool and the North West of England, 1850-1914. *History of the Family*.

¹ George Washington Walker, 'Notes on the male convict population, Van Diemen's Land', University of Tasmania Library Special and Rare Manuscripts Collection, W7/61.

² Australian, 7 January 1831.

³ The Colonist, 16 November 1837.

⁴ Launceston Examiner, 21 November 1849,

⁵ Con 33/80

⁶ Launceston Examiner, 7 December 1861.

⁷ Launceston Examiner, 10 December 1870 and 10 June 1871 and Mercury, 7 June 1871.

⁸ Cornwall Chronicle, 30 October 1872.

⁹ Cornwall Chronicle, 11 April 1874 and Tasmanian Police Gazette, 8 May 1878, p. 508.

¹⁰ Launceston Examiner, 2 October 1875.

¹¹ Launceston Examiner, 25 May 1876, 27 June 1876 and Cornwall Chronicle, 16 October 1876.

¹² Launceston Examiner, 2 December 1876.

¹³ Launceston Examiner, 24 February 1879.

¹⁴ Bathurst Free Press and Mining Journal, 28 September 1889.

¹⁵ We would like to thank Rebecca Kippen, University of Melbourne, for providing access to this dataset.

dataset. ¹⁶ Register of Convicts Applying for Permission to Marry, Tasmanian Archives and Heritage Office, Con 45 and Con 52.

¹⁷ The technique also allows us to pool all the measurements of prisoners for all ages and both sexes.

¹⁸ The Cornwall Chronicle, 4 September 1844.