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QUEEN VICTORIA'S IRISH SOLDIERS: QUALITY OF LIFE AND SOCIAL ORIGINS OF THE THIN *GREEN* LINE

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ABSTRACT. This essay examines the social background of men enlisting in the army in mid-nineteenth century Ireland. A data set of 1,032 recruits is presented, and their county origins are explored through development of an index of quality of life (QUALEIRE). Height data are presented as well as the process of recruitment. Topics include home background, census information, literacy, officers, politics, and health with reference to tuberculosis.

INTRODUCTION

In the middle decades of the nineteenth century Queen Victoria was accepted as the monarch by most people in the British Isles, and Ireland was not an exception. "The Liberator," Daniel O'Connell, spoke of, "the darlin' Little Queen," a view shared by her Hibernian subjects. The Irish people, despite irruptions across the centuries, generally accepted the situation in which their interests were settled at Westminster in a Parliament to which the few qualified voters had sent O'Connell and other representatives. Until his death 1847 O'Connell led the call for Repeal – restoration of the Dublin assembly within the Union – on behalf of the Irish people.

Domestically, Ireland had an expanding population who lived in rural poverty for the most part. In 1841, the population of Dublin city was 232,726; Cork city, to the south, had 80,720 residents. At mid-century, Belfast had not yet begun its rapid growth into a major center of population, and had 75,308 residents, according to the Census (Jordan, 1998).

The major event of the middle decades was the failure of the potato crop on which the poor were dependent. In 1845, a promising harvest of potatoes was invaded by blight in several places across Ireland. Across the next several years the potato failed entirely, and

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the population succumbed to disease and starvation. At all times food was available to those who had money, but most lived in a near cash-less economy. For them, the crisis was social as well as nutritional. Government in Dublin and London responded to reports of the tragedy within the political and economic values of the era by insisting that the burden for providing relief be borne primarily by charity, and only modestly by public resources.

At all times in the Victorian era Ireland had a young population, although the censuses recorded a few centenarians. During and after the famine the young emigrated to the four corners of the world. Among those who stayed the steady expansion of schooling brought a notable improvement in the degree of modernity (Holsinger, 1974) and awareness of the larger world. In contrast to improvements in the National Schools and in church schools, the economy was stagnant, although the northeast cultivated and processed flax, and the southeast had a complex based on cattle and butter. The cities provided some opportunities for the educated, and emigration – seasonal and permanent (Johnson, 1967; Jordan, 1999; O'Dwyer, 1991) and the army were practical alternatives to utter poverty for many.[1] A fine uniform, a square meal, and escape from the humdrum appealed to some young men. To be a "green redcoat," in Karsten's (1983) term, was attractive up to and including the second world war (1939–1945). Quality of life and the social background to that choice is the subject of this essay.

VICTORIAN IRELAND

The typical young Irish male in the nineteenth century lived in a pastoral land whose agriculture thrived in the island's central plain. Across previous centuries and into the early decades of the Victorian era the population expanded. In 1821 it was 6.8 millions, and it reached its peak in the mid-forties at over the 8.17 millions. The century had opened with memories still vivid of the uprising associated with the arrival of a Napoleonic force in Bantry Bay and of the battles fought with Irish men on both sides. The presence of Wolfe Tone in the French capital illustrated the depth of nationalism latent in Ireland's people. Over the next century a series of generally ineffective uprisings, for example, that led by William Smith O'Brien

in 1849 (Touhill, 1981), would pit Irishmen in the Queen's uniform against their fellows. That had been the pattern for centuries, and had reached its depths at the Williamite Battle of the Boyne in 1690. That military engagement fused loyalism – versus – independence with the Protestant - versus – Catholic ethnic tension, and has generated echoes down to the present day. (It has been reported that the Republic came close to sending an armed force into Ulster around 1970.)

The army in Victorian Ireland constantly sought recruits to replace men whose terms of service had ended, or who had been invalided out. The practice of the period was that sergeants and officers were assigned to recruiting duties. Taking the Queen's Shilling came after the would-be volunteer had been examined. In 1857, the journalist George Augustus Sala presented a humorous essay in which he described the evaluation of volunteers by the "Fishers of Men." Figure 1 is an illustration of the process in which physique was assessed; a measuring bar checked the young man's height. In practice, and depending on need, the application of the height standard was flexible. Routine enlistments were processed in a relaxed way, but evaluations for the cavalry and the Guards regiments were more stringent. Not the least of the problems was the practice of awarding one guinea per recruit to sergeants and five shillings to officers. Once inducted the recruit was given physical training, and some officers, for example – Colonel Lane-Fox (1875), developed detailed statistics on the physique of soldiers.

Physique and health played an urgent role in the Victorian era; the health of the population was a worry to social critics. Dr. A.G. Malcolm gave a statistical picture of health among operatives in Belfast's flax spinning mills in 1856. Their health was poor due to the heat and to the physical postures required to process flax. A decade later, in 1867, Dr. John Moore did another study and found that a good deal of workers' problems were accounted for by poor habits of nutrition at home. In both cases, however, we see the same general picture of a recruitment pool of young men who were much like their counterparts in England in their poor health (Jordan, 1998). The health of the population of the British Isles would become a critical problem at the turn of the century when the Boer War in

South Africa revealed high rejection rates at a time when the army needed men.

THE SOLDIER

From publications of the era and from archives (Jordan, 1998) we can assemble a picture of Irish soldiers at mid-century. The archive on which this sketch is developed is derived from the work of Floud, Wachter and Gregory (1990), and consists of height data on Irish recruits at mid-century extracted from their file by permission.

Age

The army was composed of young men usually between the ages of sixteen to twenty four. There were boy recruits who joined up at the age of twelve and became bandsmen. An example is Patrick Connors who, in 1839, joined the Royal Irish Regiment at the age of thirteen (Spiers, 1996). An aspect of age is the possibility of recruits giving their ages as eighteen or more when they were younger. The reason was that years of service creditable towards a pension began at age eighteen. At the other end of the age distribution were men who applied dye to their hair to appear younger than their years. Warren's Blacking worked on by Charles Dickens as a child comes to mind. It is unlikely that the recruiting sergeants, those shrewd Fishers of Men, would be deceived, however.

Height

Average height, in view of the nominal recruiting standards, was about sixty five inches (167 cm) and was fairly typical of the height of the generations at mid-century. Of course, height varied by age. A typical seventeen-year old recruit, a lad from Cork, stood sixty five and three quarter inches tall (167.31 cm), and a young man from Tipperary, at age twenty one, was sixty eight and three quarter inches (176.36 cm) tall. It should be kept in mind that the growth spurt of adolescence, in both males and females, came later in the nineteenth century and, proportionately, ended later. Mokyr and O. Grada (1992) concluded that, in the early decades, Irish males achieved full height in their early twenties. As with all populations

Figure 1.

there were exceptions; In the 1850's Connemara was the home to the Joyce lineage whose height frequently was well over six feet (Robinson, 1995).

Birth Place

The data set sheds light on the geographic origins of Irish soldiers. The census indicates that the Irish did not move far from their place of birth, except when they left Ireland. At mid-century, about

ninety five percent of them resided in the county of their birth. On that premise, Table I shows the origins of just over one thousand recruits. From it we learn that counties along the Irish Sea were more likely to provide acceptable volunteers. In the northeast, Ulster's county Down, supplied one in twenty of the recruits (5.20 percent). County Dublin to the south generated one in five recruits, followed by county Cork. Few recruits lived in the counties adjoining the Atlantic coast (see Figure 2), except for Galway with its urban center of population which provided 6.80 percent of recruits. The reputation of the Connaught Rangers was probably an inducement to some volunteers. To one Victorian commentator (Gattie, 1890), the people of Sligo and Mayo were feeble; he traced their poor physique to,"... the expulsion of Irish Kelts by Cromwell and William III from the fertile plains of Armagh and Down ... their degeneracy is due to two centuries (or about eight generations) of semi-starvation on the barren soil of their new home on the west coast." Gattie's reference to degeneracy reflected the late Victorians' increasing alarm over the declining physique of the British population (Jordan, 1993). A few years after Gattie, in testimony before the 1894 Royal Commission on Labour, migratory workers from Mayo were described by a railway foreman as lacking in muscle (Boyle, 1983). Writing as *Miles* (soldier) in 1905 Maurice reported a forty percent rejection rate on medical grounds.

Quality of Life

This concept has subjective and objective formulations. With eras distant from our own we rely on social indicators, especially those from censuses of the era (Jordan, 1997). The Irish censuses were expertly carried out and reveal a great deal about the population of the thirty two counties down to the spatial level of the townland. Implicit in the matter of geographic origin, just addressed, is the quality of life within which young men had grown up. For some the quality of home life, nurture, and opportunity meant that the life of a private in the infantry held few attractions.

Ironically, it was a degree of comfort and related matters of privilege which led other young men to seek comissions as officers.

Elsewhere (Jordan, 2000), I have examined the quality of life in Ireland between 1831 and 1901. The largest increase in the rate

TABLE I

Recruits' County of Birth

County	(N = 1,032)			Qualeire	
	N	%	County rank	1851	Rank
Antrim	144	14.00	3	12.62	09
Armagh	57	5.50	5	16.15	15
Carlow	13	1.30	18.5	08.04	02
Cavan	6	0.60	25.5	18.09	25
Clare	2	0.20	29	23.60	29
Cork	152	14.70	2	19.83	24
Donegal	4	0.40	27.5	17.39	18
Down	54	5.20	6	11.75	08
Dublin	194	18.80	1	09.61	03
Fermanagh	14	1.40	16.5	11.28	06
Galway	70	6.80	4	24.71	31
Kerry	8	0.80	22.5	21.42	26
Kildare	11	1.10	20	11.14	05
Kilkenny	4	0.40	27.5	14.88	14
King's	8	0.80	22.5	14.49	12
Leitrim	1	0.10	31	22.52	27
Limerick	50	4.80	7	20.78	25
Londonderry	16	1.60	14.5	09.99	04
Longford	1	0.10	31	19.17	22
Louth	29	2.80	9.5	19.23	23
Mayo	10	1.00	21	25.93	32
Meath	7	0.70	24	14.81	13
Monaghan	6	0.60	25.5	18.20	21
Queen's	19	1.80	11	14.43	11
Roscommon	13	1.30	18.5	23.87	30
Sligo	1	0.10	31	23.09	28
Tipperary	29	2.80	9.5	17.67	19
Tyrone	18	1.70	12	13.76	10
Waterford	43	4.20	8	16.31	17
Westmeath	16	1.60	14.5	15.43	15
Wexford	18	1.70	12	11.33	07
Wicklow	14	1.40	16.5	06.35	01

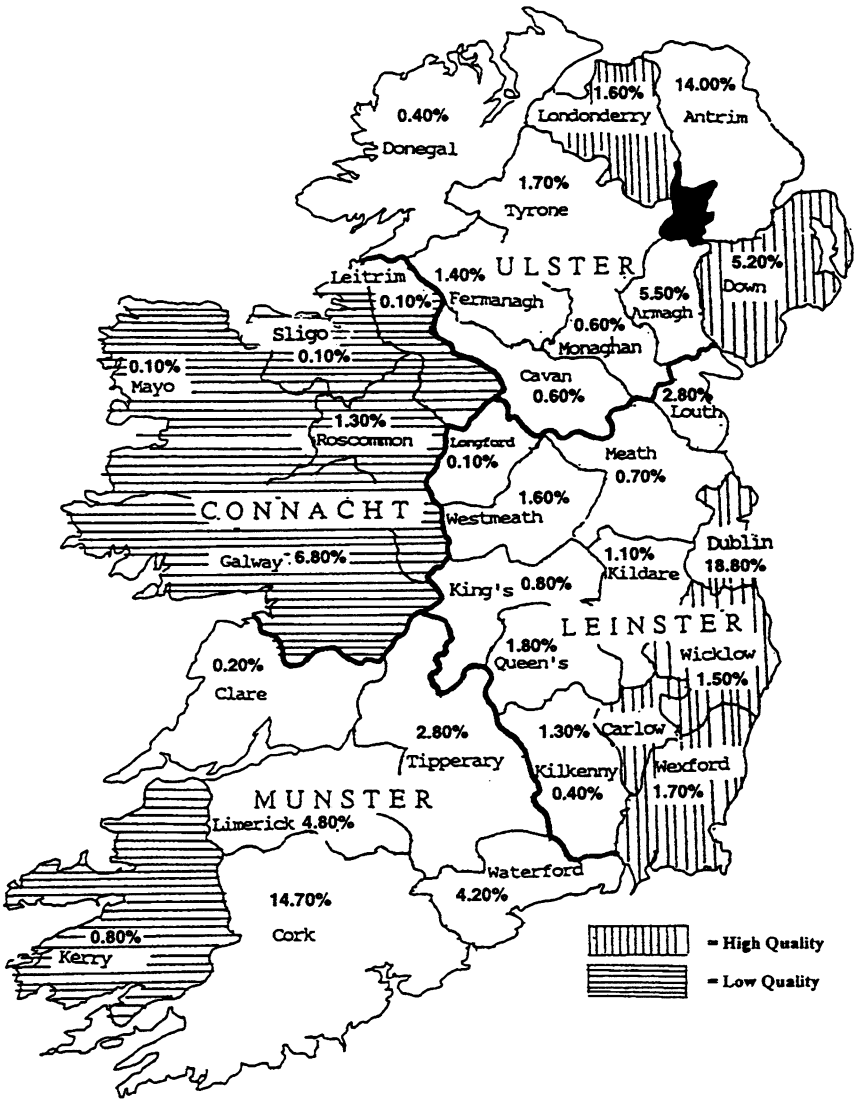

Figure 2.

of improvement across the decades came between 1861 and 1871. Using birthweights rather than social indicators led O. Grada (1994) to place the onset of improvement in Dublin in the year 1874.

In this essay, quality of life is construed to be a combination of factors based housing, education, family composition, and demography. The QUALEIRE index in Table I consists of the ranking

of each of Ireland's thirty two counties on ten variables in the four domains in 1851. The index number gives the comparative rank of a given county within Ireland. The lower index numbers express higher quality of life for a county's population (Jordan, 1997).

Ideally, there would be an acceptable criterion external to Ireland against which the local situation could be appraised. The situation in England and Wales is not valid as a standard due to the very different conditions; examples are the rise of factory towns, a different pattern of governance and social welfare, and different patterns of nutrition. In this essay, quality of life is estimated county by county as a matter of comparative rank among the thirty two counties.

In the matter of who volunteered, and the slightly different matter of who was accepted, quality of life, as Table I indicates, explains counties' generation of acceptable volunteers to a degree. That is, Antrim's high quality, relatively speaking, would generate men healthy and literate, while Sligo's low quality, apart from its small population and remoteness, may have led to higher rejection rates. As a region, the western counties yielded few recruits; in Connacht, with the anomaly of Galway considered earlier acknowledged, there probably were fewer acceptable volunteers.

In their case, monolingual Gaelic-speaking and the low quality of life probably combined to produce fewer volunteers and a higher rejection rate.

The top seven counties in quality of life in 1841 yielded 60.20 percent of 1032 recruits.

The best counties, Carlow and Wicklow, provided 17.10 percent of the recruits, or a disproportionate one in six men. In comparison, the three counties lowest in quality of life, Galway, Monaghan, and Mayo, generated 8.40 percent, or one half of the productivity of the best counties. In the case of the best and worst counties their potential yield based on population alone was relatively balanced.

Human Resources

By mid-century some armies began to seek the best in their pools of recruits.[2] The reforms of Edward Cardwell (late sixties to early seventies) introduced a degree of modernity into what had been a tradition-bound service. Mere size and obedience were insufficient in the minds of thoughtful people, and they saw Private Thomas

Atkins as a resource to cultivate as well as expend. At all times soldiers were an investment. Karsten (1983) estimated the Army's equity, in 1886, at forty pounds per private. Corporals absorbed fifty one pounds, and Sergeants were valued at sixty nine pounds. At that time, according to Turner (1996), a farm laborer in Wicklow earned about twenty five pounds per annum. A valued item was literacy. The 1841 census cast light on the extent of literacy among soldiers in Ireland. The census said that, "66 percent ... can read and write," including officers.

> Upon the whole, it is gratifying to see that, compared with the mass of the population, the army is by no means an uneducated class. (1841 Census, General Report, p. 38)

Health

Attractions of the army were the certainty of bed and board, pay at regular intervals, and travel. Drawbacks not apparent to aspirants were boredom, danger, and ill-health. This last item was less the consequence of serving in Victoria's thin green line than a correlate of living conditions. Discharge after a few years service on health grounds was a continuous process, especially after service in tropical climes. In such places exotic diseases were a hazard; the mechanism was often dehydration rather than the nominal infection. For soldiers serving in the British Isles sanitary risks were high, and sanitary reform to improve public health only began in the 1840's with the work of Edwin Chadwick.

Irish soldiers shared a major health risk with the general population; The great disease of the era was tuberculosis, known to the Victorians as *phthisis.* For soldiers the risk arose amidst crowded barracks. In the 1840's the distance between sleeping cots was only six inches (Rosenberg, 1990). In 1858, Neison reported the deaths of 2823 soldiers in a peacetime year; of that number one half were ascribed to tuberculosis. The army acknowledged the problem and wrapped a flannel cummerbund around the soldiers' waist as prophylaxis. Tuberculosis reached its peak in the 1890's (Clarkson and Crawford, 1989).[3]

Urban Recruiting

A feature of Ireland's demography was the progressive growth of towns. Ireland's population across the decades from 1831 to 1901 – the decades of Queen Victoria's reign – declined from 7.76 to 4.46 millions; in the same period, the population of Dublin rose from 122 528 to 150 250 persons, while that of Belfast climbed from 28 739 to 187 564 persons (Vaughan and Fitzpatrick, 1978). In so doing, Irish towns resembled other places in the United Kingdom. Physically, they all consisted of buildings usually up to five or six stories constructed in recent years plus a residue of older, decaying structures in the core. The old buildings contained the poor in tenements. In the case of Dublin there were nearly six thousand such buildings housing the poor in 1900 (Kearns, 1994).

Quality of life in Dublin, Cork, and Belfast was similar to that in Glasgow, Leeds (with Its infamous back-to-back housing), and Birmingham; overcrowding and poverty in Victorian cities created similar social dynamics. The facts of urban destitution were well understood by Victorian reformers. Overcrowding, poverty, and disease had correlates in sickness, abuse, and mortality. In Ireland, where vital statistics were formally gathered only in the 1860s, the peak of infant mortality occurred in 1880 at 112 deaths per 1000 births (Vaughan and Fitzpatrick, 1975). For those who survived infancy there were subsequent cullings due to childhood diseases. This legacy accentuated by misnutrition and compounded by abuse of alcohol led to poor health.

In 1875, Ireland's Commander-in-Chief, Lord Sandhurst, saw presented to him as would-be soldiers the "... riffraff ... of Cork and Dublin" (Spiers, 1996). Rejection rates were high, as were rates of medical discharge among those accepted. Contributing to the poor health of the young was a decline in the nutritional value of people's diets (Ward, 1993). Dublin's poor were found to rely excessively on tea, skimmed milk, cabbage, and potatoes, according to a Royal Commission, as the new century opened (Stafford, 1904). Not surprisingly, research has revealed that a "dampened growth spurt" in the era (Nicholas and Steckel, 1997) had prevailed for decades. Its outcome was cohorts of malnourished young men who, even after enlistment and training, were ill-equipped by their prior quality of life for lengthy service in Queen Victoria's thin green line.

Home Life

It is likely that recruits brought diseases into the army from their homes. It is to an army officer, the engineer, Captain Thomas Larcom, that we look for a systematic account of housing conditions within which soldiers had passed their earliest years. Larcom entered public life as a Commissioner for the 1841 census. Beyond that role he advanced in public life and served Dublin Castle as a senior civil servant (Jordan, 2001). Larcom's classification of housing proved valuable until late in the century. He classified housing according to three factors; they were the number of rooms, the number of windows, and the materials in the walls and roof.

> ... in the lowest or fourth class, were comprised all mud cabins having only one room – in the third, a better description of a cottage, still built of mud, but varying from 2 to 4 rooms and windows – in the second, a good farm house, or in towns, a house having from 5 to 9 rooms and windows – and in the first, all houses of a better description than the preceding classes. (1841 Census, General Report, p. 14.)

In the 1841 census, the Commissioners listed the number of fourth class houses as 491 278; by 1871 this class had declined to 156 741, and in 1891 it was down to 20 617. The sharpest decline in this abysmal level of protection for families occurred in the 1840's with the disappearance of 355 689 hovels. The decline of fourth class dwellings did not mean an improvement in the quality of life since the dwellings were rarely replaced. It is, of course, in the correlates of fourth class housing – overcrowding, animals, and hygiene- that this class of dwellings had its greatest impact on the health and welfare of young people. To the young agricultural worker, the *spalpeen*, the army presented an opportunity. Conversely, a sergeant recruiting for the Royal Inniskilling Fusiliers probably saw unpromising material which he would turn away.

In the case of second class housing and its correlates of some material comfort the volunteer was probably schooled by the National School system or church schools into literacy and modernity (Holsinger, 1974).[4] Also, he would speak the language of everyday commerce and of the schools – English. Regionally, the west and southwest constituted the *gaeltacht* where Irish was spoken. Those who were bilingual were suitable for the army, unlike monolingual Gaelic speakers, most of whom, according to the 1851

census, lived in Kerry, Mayo and Donegal. Those counties furnished few recruits.

Officers

The officer corps of the British army had few Roman Catholics until their legally empowered exclusion was removed by legislation; in 1829 a number of disabilities were lifted and, for example, Catholics could enroll in English universities. Another burden was the practice of buying commissions; there were additional costs associated with maintaining social position in selected regiments. Under Edward Cardwell at the War Office the practice ended, and the army started on the long road towards a merit-based cadre of officers.

The social origins and quality of life of the Victorian officer class, except for the Militia and for the Indian Army, were quite elevated. The Anglo-Irish caste, especially in Ulster, provided a set of officers similar in background and values. Associated with land rather than industry they shared family connections, recreation, and religion. Typically loyalists they eschewed republicanism and sought to affirm their ties to the Crown.

POLITICS

While theoretically a professional group outside politics officers were amenable to the interests of their privileged class. This matter continued after Victoria's death in 1901, and culminated in 1913 in the Curragh incident. In that affair, the officer class in Ireland made clear their opposition to the impending enactment of Home Rule, and their support for an insurrectionist Ulster militia to be led by serving officers. Politics was evident several decades earlier in the ranks of the army. Under several nationalists, among whom James Stephens was a leader, the Fenian movement recruited soldiers. After the abortive invasion of Canada from Buffalo, NY, in 1866, the Irish Revolutionary Brotherhood saw that a trained military force was vital to achieving Irish independence. In the 1860's they administered the Fenian oath to perhaps three thousand soldiers in a force of twenty two thousand (not all of whom were Irish-born).When the Fenians rose up in 1867 the army remained loyal (Kee, 1992).

Into the twentieth century were projected the social strains, e.g. nationalism and religion; they emerged more clearly and eloquently in the nineteenth century than in the preceding era as a rising quality of life permitted more than transient attention to such issues. The backgrounds of Irish officers and other ranks in Queen Victoria's Thin Green Line, expressed the social strains of the larger society.

NOTES

[1] This essay addresses the social background of Irish soldiers enlisting in Ireland. A related topic is the matter of Irish men serving in armies outside the United Kingdom. Following the Battle of the Boyne in 1690 the Treaty of Limerick allowed Stuart supporters to migrate to France. These Wild Geese served in many European armies (Hennessy, 1973).There was a St. Patrick's Battalion which served in a minor capacity in the Papal wars in 1860 (Berkeley, 1929). In America the Irish served on both sides during wars with Mexico (Davis, 1994), and during the Civil War (Kohl, 1994).

[2] In 1847, enlistment was reduced to eleven years, and in 1849 an examination became prerquisite to receiving a commission (Strahan, 1980).

[3] Smith's (1998) review of tuberculosis designated Victorian Ireland, "A redoubt of tuberculosis." Smith pointed to 1904 as the peak year with deaths at the rate of 28.80 per ten thousand persons. One half of deaths among persons between fifteen and forty five years of age were due to tuberculosis in the 1870s and 1880s. Tuberculosis did not decline substantially until after the 1914 – 1918 war.

[4] Modernism is a complex of values which includes secularism, acceptance of change, futurism, risk-taking, ease with technology, freedom from superstition, sense of time, reliance on science, optimism, and preference for the new. A list of terms may be found in Holsinger, D.B. and Theisen, G.L. (1977) Education, Individual Modernity, and National Development: A Critical Appraisal. *Journal of Developing Areas, 11,* 315–334.

REFERENCES

Berkeley, G.F.H.: 1929, The Irish Battalion in the Papal Army of 1860 (Talbot, Dublin).

Boyle, J.W.: 1983, 'A marginal figure: The Irish rural laborer', in S. Clark and J.S. Donnelly (eds.), Irish Peasants; Violence and Political Unrest 1780–1914 (University of Wisconsin Press, Madison, WI).

Census of Ireland: 1841, General Report, 1843 (Thom, Dublin).

Clarkson, L.A. and E.M. Crawford: 1989, 'Diet and health in Ireland', Professional Horticulture 3, pp. 69–75.

Connolly, S.J.: 1994, The Oxford Companion to Irish History (Oxford University Press, Oxford).
Davis, G.: 1994, 'Talking freedom; The Irish in the Texas Revolution', Irish Studies Review 8, pp. 18–24.
Floud, R., K. Wachter and A. Gregory: 1990, Height, Health, and History: The Nutritional Status of the British 1750–1880 (Cambridge University Press, Cambridge).
Gattie, W.M.: 1890, 'The physique of European armies', Fortnightly Review 68, pp. 567–585.
Giddens, A.: 1990, The Consequences of Modernity (Stanford University Press, Palo Alto, CA).
Hennessy, M.: 1973, The Wild Geese: the Irish Soldier in Exile (Deven – Adair, Old Greenwich, CN).
Holsinger, D.B.: 1974, 'The elementary school as a modernizer: A Brazilian study', in A. Inkeles, and D. B. Holsinger (eds.), International Journal of Comparative Sociology 14, pp. 180–202.
Johnson, J.H.: 1967, 'Harvest Migration from Nineteenth Century Ireland', Transactions of the Institute of British Geographers 41, pp. 97–111.
Jordan, T.E.: 1997, Ireland and the Quality of Life: the Famine Era (Mellen, Lewiston, NY).
Jordan, T.E.: 1998, Ireland's Children: Quality of Life, Stress, and Child Development in the Famine Era (Greenwood Press, Westport, CT).
Jordan, T.E.: 1999, 'John O'Neill, Irish bootmaker: A biographical approach to quality of life', Social Indicators Research 48, pp. 299–319.
Jordan, T.E.: 2000, 'The quality of life in Victorian Ireland, 1831–1901', New Hibernia Review 4, pp. 103–121.
Jordan, T.E.: 2001, 'Thomas Aiskew Larcom: Ireland's Imaginative Empiricist'. Unpublished manuscript.
Karsten, P.: 1983, 'Irish soldiers in the British army, 1792–1922: Suborned or subordinate?' Journal of Social History 17, pp. 31–64.
Kearns, K.C.: 1994, Dublin Tenement Life: An Oral History (Penguin, New York).
Kee, R.: 1972, The Green Flag (Weidenfeld and Nicholson, London).
Kohl, L.F.: 1994, The Irish Brigade and its Campaigns, by D. P. Conyngham (Fordham University Press).
Lane Fox, A.: 1875, 'Note on the chest measurements of recruits', Journal of the Anthropological Institute of Great Britain and Ireland 5, pp. 101–106.
Malcolm, A.G.: 1856, 'The influence of factory life on the health of the operative, as founded upon the medical statistics of the class at Belfast', Journal of the Royal Statistical Society 19, pp. 170–181.
Miles.: 1902, 'Where to get men', Contemporary Review 81, pp. 78–86.
Mokyr, J. and C. O Grada: 1994, 'The heights of the British and Irish c. 1800–1815: Evidence from recruits to the British East India Company's Army', in J. Komlos (ed.), Stature, Living Standards and Economic Development: Essays in Anthropometric History (University of Chicago Press, Chicago, IL).

Neison, F.G.P.: 1858, On Phthisis in the Army (Murray, London).
Nicholas, S. and R.H. Steckel: 1997, 'Tall but poor: Living standards of men and women in pre-famine Ireland', Journal of European Economic History 26, pp. 105–134.
O'Dowd, A.: 1991, Spalpeens and Tattie Hokers (Irish Academic Press, Dublin).
O Grada, C.: 1994, Ireland: A New Economic History (Clarendon, Oxford).
Robinson, T.: 1995, Connemara after the Famine (Lilliput, Dublin).
Rosenbaum, S.: 1990, 'More than a century of army medical statistics', Journal of the Royal Society of Medicine 83, pp. 456–463.
Sala, G.A.: 1857, 'Fishers of men, or recruiting for her majesty's forces in London', Illustrated Times 5, pp. 379–381.
Smith, F.B.: 1988, the Retreat of Tuberculosis (Croom Helm, London).
Spiers, E.M.: 1996, 'Army organisation and society in the nineteenth century', in T. Bartlett and K. Jeffery (eds.), A Military History of Ireland(Cambridge University Press, Cambridge).
Stafford, T.: 1904, 'Note on the social condition of the working class in Dublin', Proceedings of the Royal Commission on Poor Laws and Relief (HMSO, London).
Strahan, H.: 1980, 'The early Victorian army and the nineteenth century revolution in government', English Historical Review 95, pp. 782–809.
Touhill, B.M.: 1981, William Smith O'Brien and His Revolutionary Companions in Exile (University of Missouri Press, Columbia, MO).
Turner, M.: 1996, After the Famine: Irish Agriculture, 1850–1914 (Cambridge University Press, Cambridge).
Vaughan, W.E. and A.J. Fitzpatrick: 1978, Irish Historical Statistics. Population, 1821–1971 (Royal Irish Academy, Dublin).
Ward, W.P.: 1993, Birth Weight and Economic Growth (University of Chicago Press, Chicago, IL).

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