

The interface of race and accounting: the case of Hawaiian sugar plantations, 1835-1920

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Abstract

This paper explores the interface of race and accounting on Hawaiian sugar plantations during the 1835-1920 period. The data examined at the Hawaiian Sugar Planters' Association (HSPA) archives indicate that Caucasian and ethnically Hawaiian workers were paid significantly higher wages and held a disproportionately larger number of managerial positions than Asian counterparts. In addition, workers from different ethnic groups were imported at various times to stem an existing group's solidarity and demands for higher wages and better conditions. We review the accounting techniques used on the plantations and provide examples showing how the HSPA employed racist policies, controlled labour, and instituted productivity and cost control measures. The archives examined contain an extensive amount of data on worker attendance and field productivity; however, they include no records on the performance of individual workers. The absence of these data suggests that race rather than efficiency served as the primary measuring calculus of plantation work.

Keywords: *racism; sugar plantation history; accounting history; labour cost; labour control.*

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Introduction

One of the tangible contributions of critical accounting research has been the effort to give voice to suppressed groups of individuals whose plights have not been reflected or represented in primary source material or mainstream historical narratives. Gender-based discrimination has constituted an overwhelming focus of this component of the critical agenda (Tinker & Neimark, 1987; Ciancanelli *et al.*, 1990; Loft, 1992; Thane, 1992; Kirkham & Loft, 1993; Gaffney *et al.*, 1995). However, the net has been cast more widely to include minorities (Hammond & Streeter, 1994; Gaffney *et al.*, 1995), indigenous populations (Neu, 1999; Spraakman, 1999), post-colonial societies (Hoogvelt & Tinker, 1978; Arnold & Hammond, 1994; Elad, 1998; Catchpowle & Cooper, 1999), and even perhaps the more obscure participants in the accounting function itself (Cooper, 1997). Critical accounting's grand design does not end by describing the world; it suggests a duty to change it (Cooper, 1997, p.15, referencing Neimark, 1990). An "overwhelming priority" is to deal proactively with questions of justice (Arrington, 1997, p.13), and to wade in on those occasions when the public interest demands (Bebbington *et al.*, 1999, p.50). Prominent in critical action is the power of accounting as an enabler, "to act as a force for radical emancipatory social change through making things visible and comprehensible and helping engender dialogue and action towards emancipatory change" (Gallhofer & Haslem, 1997, p.82).

Germane to this paper additionally is the message that Tinker and his collaborators have been advancing since the late 1970s in the critical literature to the effect that accounting records do not convey the neutral, value-free information that some would have us believe (see, in particular, Tinker's [1991] response to Solomons [1991]). Various, accounting has been identified as "ultimately ideological" (Tinker, 1985, p.100), the disenfranchiser of certain social interests while legitimising and empowering others (Tinker *et al.*, 1988, p.118). Tinker and Ghicas (1993, pp.375, 377) highlighted the "constitutive" role of accountants as "adjudicators in social conflict". We would not ascribe to accounting such a high degree of partisanship in today's world of raised consciousness and an array of regulatory regimes including self-regulation by the organised accounting profession. However, in older times when sensitivities lay deeper beneath the surface, accounting was not so constrained.

While ethnic minorities traditionally appear on all lists of suppressed voices and disenfranchised social interests, there has been little work done on the deployment of accounting in support of a racist regime. Post-colonial African accounting has been considered in some detail (Hoogvelt & Tinker, 1978; Arnold & Hammond, 1994; Elad, 1998; Catchpowle & Cooper, 1999), but the emphasis in these studies has been on a more traditional Marxist vision of conflictual economic classes wherein native Africans are exploited seemingly because of their

proletarian status rather than their race. Investigations by Gaffney *et al.* (1995) and Hammond and Streeter (1994) have demonstrated discrimination against African-Americans but only within the context of the US accounting profession. A particularly notable exception to the shortfall of work on the interface of race and accounting is Funnell's (1998) penetrating study of accounting's complicity in the Holocaust, the "extermination accounting" which tracked not only the Jewish victims but the sequestration of their property. Funnell (1998, p.439) depicted how accounting was "able to supplant the qualitative dimensions of the Jews as individuals by commodifying and dehumanising them".

It is not clear to us why critical researchers have not paid greater attention to racism historically given the prominence of these issues in today's world and the grand design discussed above. Laughlin's (1999, p.73) recent definition of critical accounting renders the omission even more puzzling:

A critical understanding of the role of accounting processes and practices and the accounting profession in the functioning of society and organisations with an intention to use that understanding to engage (where appropriate) in changing these processes, practices and the profession.

Perchance critical accounting's plate has been full with the attention afforded to conflictual economic classes and gender issues. However, historians have long recognised the potentially racist parameter to labour control. Beckford (1972, p.67, quoted in Beechert, 1993, p.45) observed, "race was a convenient means of controlling labor". Notwithstanding, Razek (1985), in the one US-based accounting history study we have seen on the plantation economy, did not find a racist managerialism. He found an environment in which the slaves were to be treated paternalistically so long as each performed an expected daily amount of labour. This study of Hawaiian sugar plantation accounting arrives at diametrically different conclusions and is intended, like Funnell's, to respond to Hammond and Streeter's (1994, p.285) recognition of "the need for more research on the interrelationship between race and accountancy".

We do not subscribe to the idea that accountants were in a strong position to influence their environments significantly in days and venues before accounting became firmly established as a profession. However, an important facet of accounting history is to investigate the degree to which accounting records are reflective of their times. Tinker and Neimark (1987, p.75) expressed the importance of this broader context well:

... to understand the origins of an organization's pattern of employment by sex (or by race or ethnicity), one must examine such factors as the industry's structure and the organization's place in it, the relative labor intensity of its technology, the availability of labor and its ethnic, racial and gender characteristics, the prevailing mode(s) of control over labor, and the actual or anticipated political and social effects of the choice of labor force.

It is in keeping with these wide parameters that the paper is organised as follows. In the two succeeding sections, we investigate the Hawaiian sugar industry generally and the racial mosaic of Hawaiian society. Next, we consider the issue of labour control in Hawaii at a level that was beyond the ability of accounting or accountants to influence. We then examine the various types of records that were maintained on the sugar plantations, both those which seemed oriented towards racism and those independent of such a purpose.¹ We conclude with observations as to how this environment gave rise to a distinctive methodology and offer some suggestions for further research into plantation records, Hawaiian and otherwise.

The sugar environment in Hawaii

The overthrow of the monarchy and the annexation of the Islands by the US divide the early history of the Hawaiian sugar industry into two distinct periods with the 1890s as the watershed. More importantly, however, was the formation of an owners' cartel, the Hawaiian Sugar Planters' Association (HSPA), and the consolidation of power by the "Big Five" sugar factors in Honolulu — C. Brewer, Castle and Cooke, American Factors, Alexander and Baldwin, and Theo. H. Davis. The earliest history of the industry featured a number of great personalities with interesting stories to tell. Yet, patterns began to develop that were subsequently reflected by the emerging industry. William Hooper's Koloa Plantation of the late 1830s was the first commercial, sugar-growing enterprise. Hooper inaugurated a system of capitalist paternalism which Takaki (1983, pp.10-3) claimed served as a model for later labour relations in the plantation economy. It was also the case that Hooper became "frustrated" with the performance of native Hawaiian workers, who lacked a capitalist work ethic and required constant surveillance, and began to employ Chinese labourers. Ethnic segregation by job function, the disproportionate use of white overseers, and other race-based labour policies commenced at this point as the Chinese were employed in the sugar mill while the Hawaiians were used as field hands (Takaki, 1983, pp.10-3).

The 1840s and 1850s saw the native monarchy legislate some enactments that were crucial to the development of sugar growing. An 1841 law permitted the collection of fines and the withholding of wages for worker inefficiency (Fuchs, 1961, p.206). The descriptive word "sluggardness" was actually used (Okiihiro, 1991, p.15). However, the more dramatic legislation was the 1848 *Great Mahele* which for the first time permitted non-native Hawaiians to own land, and the 1850 *Masters and Servants Act* which legalised and defined the parameters of contract labour. The *Masters and Servants Act* provided that Hawaiian and foreign labourers alike could be subjugated to ten-year terms of indenture with severe penal consequences for refusing to work or desertion. However, labourers were protected in theory against corporal punishment, wage deductions, contract extension without

their permission, and non-provision of food or housing (Fuchs, 1961, pp.25, 207; Beechert, 1985, p.324; Okihiro, 1991, p.57).

Mark Twain visited the Islands in 1866 and wrote several articles for the *Sacramento Weekly Union*, one of which was on the sugar industry. While Twain was most impressed with the productivity of Hawaiian acreage, both in terms of yields and returns on capital, he devoted the bulk of his article to a discussion of labour. He wrote of the inefficiency of “Kanaka” labourers (the same term was used to describe South Sea Islanders who toiled on Queensland, Australia sugar plantations in the early days²), who frequently failed to appear for work even though a day’s absence could require an extra two-days’ work following the contract’s termination. Twain recommended the virtues of “coolie” labour for Hawaii, as he had observed in California (Twain, 1939, pp.38, 51).

The dominant force in nineteenth century Hawaiian sugar was Claus Spreckels, whose plantation on Maui represented the highpoint in technological and accounting sophistication. A number of innovations in the early 1880s followed careful experimentation and cost tracking. Spreckelsville introduced five-roller grinding to reduce sugar loss, utilised bagasse (cane waste) to replace coal, and irrigated on a vastly larger scale to reduce labour costs (Adler, 1966, p.73). Daily reports to plantation managers provided information as to how and where each man was employed and the number of hours worked. This plantation was one of the earliest to maintain systematic cost records so that Spreckels could tell the cost of all crops at any stage on a field-specific basis. Comparisons were made to past performance for control purposes. These efficiencies meant that Spreckels could bring his sugar to market in San Francisco for two cents per pound less than his competition. The great sugar entrepreneur also saw the profit to be made in vertical integration. Spreckels was the first to control marketing mechanisms as well as growing the cane. He invested heavily in William C. Irwin Co. which became one of the largest nineteenth century sugar factors, being the agent for 15 of the 60 plantations in operation in 1882 (Adler, 1966, pp.77-8, 97-9).

The Hawaiian sugar industry was an oligopoly which, as we will see subsequently, had ramifications with respect to the volume and type of accounting records produced. Control was evident at two levels – the planters’ cartel (the HSPA) and the “Big Five”, (i.e. the Honolulu-based financial houses). As Samuel Dole, the first territorial governor and pineapple magnate, indicated, co-operation rather than competition was the keynote of Hawaii’s economy (Fuchs, 1961, p.242).

The HSPA was founded in 1894 to advance the interests of the sugar growers. There had been predecessor organisations dating from the earliest days of the plantation economy. The Royal Hawaiian Agricultural Society of the 1850s and the Planters’ Labor and Supply Company of the 1880s had mainly existed to recruit outside labour to the Islands (Fuchs, 1961, p.24; Okihiro, 1991, p.56). Dedicated to

enhancing labour supply, these forerunners had fostered competition between and among the various ethnic groups, a policy later reflected in HSPA operations (Takaki, 1983, p.68).

The HSPA was active in matters other than labour recruitment and control. In 1895, an experiment station was started and, in 1905, the Crockett refinery in California was purchased to relieve Hawaiian growers from dependence on West Coast refiners (Daws, 1968, p.311). The organisation employed staff engineers, economists, statisticians, and auditors who served in advisory capacities to the members (Fuchs, 1961, p.244). All but three of the 47 sugar plantations operating in Hawaii eventually belonged to the HSPA, and local chapters in all sugar-producing regions of the Islands sent representatives to territory-wide meetings. The organisation paid its way by assessing dues on each plantation's volume of exported sugar.

The HSPA most obviously functioned as the dominant force in labour relations (Beechert, 1985, p.175). Most of the 400,000 labourers who immigrated into Hawaii between 1852 and 1930 (Fuchs, 1961, p.24) travelled under its auspices and fell under its contractual arrangements. In 1901, the HSPA established wage maximums for field workers that varied from \$18 to \$24 per month, based on particular islands and specific locales. Workers were not allowed to leave plantations to migrate to higher-paying districts without a certificate of discharge (Takaki, 1983, pp.83-4). Subsequently, the HSPA formalised a bonus system which became a distinctive feature of the industry in the World War I period and came to determine the pattern of accounting record keeping.

In numbers that parallel today's international accounting arena, the "Big Five" Honolulu factors controlled the Hawaiian sugar industry to a vastly greater degree than even the owners' cartel. Starting with the financing function, these agents expanded into virtually every aspect of operations – insurance, utilities, railroads, shipping, supply and machinery procurement, marketing, labour recruitment, and maintaining the books (Fuchs, 1961, p.22; Daws, 1968, p.312). By 1910, the Big Five controlled approximately 75 per cent of Hawaii's sugar production and by 1930 the percentage had expanded to over 90 per cent (Fuchs, 1961, p.22; Okihiro, 1991, p.14). By virtue of the fact that commissions rolled in during good times and bad, it became quite clear that the factors were "the tail that wagged the dog" (Daws, 1968, p.312).

In strictly economic terms, the HSPA and Big Five domination of the sugar industry proved to be a positive development for sugar growers. Fuchs (1961, p.22) pointed out the inefficiency of the early days when the planters did their own buying and selling rather than to attend to the administrative and technical problems that should have occupied their entire attention. The factor system forced the weaker, independent planters into bankruptcy (Fuchs, 1961, p.243). The concentration of control made possible economies of scale and a scientific

approach to production that made the Hawaiian sugar industry unparalleled in the world (Lind, 1955, p.65).

The racial mosaic

Between 1896 and 1932, while the number of Hawaiian sugar plantations declined from 56 to 46, the labour force doubled in size from 25 to 50 thousand and sugar production quadrupled in volume (Daws, 1968, p.311). Building upon traditions commenced in the nineteenth century, this growth was fostered from a labour perspective by waves of immigrant workers from different cultures and ethnicities. Taking a page from Twain's observation, historians have documented how the initial native Hawaiian labourers were perceived as unwilling to work hard enough, how they "squatted" when the overseer's back was turned, and how they "feigned" labour otherwise (Fuchs, 1961, p.24; Daws, 1968, pp.178-9, 285; Takaki, 1983, p.130). *Haole* society viewed this "indolence" as racial inferiority (Beechert, 1993, p.48). As presaged on Hooper's Koloa Plantation, the transition to Chinese labour came mainly in the 1870s. Okihiro (1991, p.59) provided the supporting statistics. In 1872, Hawaiians constituted 82.8 per cent of the plantation work force. By 1882, their numbers had declined to 25.1 per cent, while the newly arrived Chinese comprised 49.2 per cent. The Chinese were extremely productive in the fields but typically refused to remain on the plantation following their initial contract, preferring to relocate (Takaki, 1983, p.23). The Chinese found employment more profitable on rice plantations and as urban labourers. Their willingness to seek other opportunities as alternatives to penal contract, an antidote to effective labour control, was looked upon as one of the "undesirable traits" of the ethnic group (Beechert, 1993, pp.48-9, 51). In the 1880s, the Japanese primarily and the Portuguese secondarily began to fill the void left by the Chinese workers' refusal to accept a second indenture. The Japanese comprised 42.2 per cent of plantation workers in 1892, but a startling 75.3 per cent in 1902 (Okihiro, 1991, p.59).

The annexation of Hawaii as a US territory in 1898 precipitated the search for new directions in the recruitment of ethnic groups to provide plantation labour. Although the importation of the Chinese had diminished to a trickle anyway for reasons stated above, Hawaii was now subject to the 1882 *Chinese Exclusion Act*. Soon similar restrictions were applied to Japanese immigration, first with the 1908 *Gentlemen's Agreement*, whereby the Japanese government voluntarily and informally agreed to restrict immigration, and subsequently with total Japanese exclusion in 1924 (Daws, 1968, p.304). It is probably the case that the importation of Japanese labour would have subsided without the impetus of US policy because the Japanese shared the Chinese economic preference for leaving the plantation and because the number of Japanese nationals in the Islands, substantially larger than other ethnic groups, was becoming worrisome to the HSPA. Moreover, the abrogation of indenture contracts in 1900 eliminated the condition under which

many Japanese immigrated to this country. Various Puerto Ricans, Koreans, Spaniards, and Russians were recruited to offset the labour shortfall occasioned by these changes in the Japanese situation (Fuchs, 1961, p.210). Ultimately, Filipinos provided the long-term solution, in part because they did not relocate to cities like the Chinese and Japanese did after their initial indenture (Fuchs, 1961, p.146). Presumably their willingness to remain on the plantations was linked to their more frequent emigration as single persons. The percentage of Japanese workers declined dramatically, from nearly 70 per cent in 1908 soon after the inception of the *Gentlemen's Agreement*, to 54 per cent in 1915, and to 18.8 per cent in 1932 (Takaki, 1983, p.163; Okihiro, 1991, p.59). Meanwhile, the Filipino contingent escalated from 41 per cent in 1922 to 69.9 per cent in 1932 (Okihiro, 1991, p.59).

Scattered evidence on wage rates clearly reflects differentiation based upon ethnicity. Wage rates per month in 1894 at Laupahoehoe Plantation were \$14 per month for Asian and \$16 for Portuguese field hands (Okihiro, 1991, p.65). A survey of 38 plantations in 1901 revealed varying wage rates for skilled functions on a race-specific basis as outlined in Table 1.

Table 1: Daily wage rates in 1901

Blacksmiths		Carpenters	
Ethnic Group	Wage	Ethnic Group	Wage
Scots	\$4.16	Mainland Whites	\$3.67
Part-Hawaiians	2.94	Scots	2.90
Hawaiians	2.37	Part-Hawaiians	1.73
Japanese	1.50	Portuguese	1.54
		Japanese	1.09

Source: Fuchs, 1961, p.55

The first major labour strike in the history of the Hawaiian sugar industry occurred in 1909, following the formation, in the previous year, of the Higher Wages Association by Honolulu Japanese (Fuchs, 1961, p.212). The strike was entirely along ethnic lines as the Japanese were protesting their pay rate of \$18 per month, compared to \$22.50 accorded to Portuguese and Puerto Ricans (Daws, 1968, p.304; Takaki, 1983, pp.156-7). Although ostensibly a failure, the strike did produce some tangible results the next year. Wages were raised to \$18-\$20 for "Oriental" field workers but the racial differentiation remained as Caucasians received \$22-\$24 (Fuchs, 1961, p.55). A second major strike in 1920 was likewise occasioned by the issue of differential pay scales based on race.

Just as wage rates were differentiated according to ethnicity, so also was racial stratification of job function in evidence. In 1882, 88 per cent of the lunas (overseers) were white, while 76.8 per cent of the field workers were either Hawaiian or Chinese. There were no lunas at all from these two racial groups (Takaki, 1983, p.76). By 1915, of 337 overseers, 83 per cent were white with but 19 Asians (2 Chinese, 17 Japanese) (Takaki, 1983, p.77). In these statistics, the Portuguese must have been considered white as they comprised the majority of the luna class.³ Both Fuchs (1961, p.54) and Daws (1968, p.315) discussed the stratification of plantation jobs and the resulting pecking order - Caucasians, Hawaiians and Part-Hawaiians, Portuguese, Chinese, Japanese, then Filipinos.

Control of labour

It will be discussed subsequently how the Hawaiian sugar planters did not deploy traditional accounting methods to control labour through the maintenance of individual productivity data. However, it should not be assumed that plantation managers had no understanding about the level of output that workers should achieve. On 31 October 1901, F.B. McStocker, Oloa Sugar Company's manager, noted that "a laborer working properly should cut 5 tons a day of sugar cane so that 20¢ a ton would enable them to make their \$1.00 a day, so that should be the maximum figure per ton" (PSC 2/2).

The Hawaiian government imposed a series of regulations to control labour. During the days of the monarchy, the *Master and Servants Act* of the mid-nineteenth century served as a protection for plantation workers who were in the main tied to their labour by contractual arrangement. An 1884 addendum stated the law's intent clearly, "every laborer serving under written contract shall be entitled to his full pay under the contract" (Beechert, 1985, p.53). Consequently, the law had intended that any pay abatements were limited to time lost while under contract rather than for inefficient or non-productive labour. However, before and after the 1884 clarification, there continued to be a unilateral and "extrajudicial assessment of penalties" meted out on many plantations (Beechert, 1985, p.53), constituting a major source of grievance. It may have been that the legal impediment to fining and docking determined a unique feature of Hawaiian accounting control of labour — a careful attention to workers' attendance (turning out) accompanied by an almost total avoidance of calculation as to an individual worker's productivity.

The Bureau of Immigration in 1866 promulgated a series of rules for contract labourers that imposed fines but only for offenses related to attendance. Fifteen minutes of tardiness resulted in the loss of a quarter-day's wages, while two days' wages were assessed for a single day's absence (Takaki, 1983, pp.70-1). The Waihee Plantation published a set of rules that ordered its field hands' work and leisure life but without fines. Words such as "industrious", "docile", and "obedient" appeared. A particularly interesting feature was the power of the overseer to

establish a "stint", a particular piece of work to be achieved in one day. The individual worker could either complete that task or work the normal ten-hour day of the plantation (Beechert, 1985, pp.72-3).

The Bureau of Immigration periodically investigated the plantations to see if the laws were being followed. An unidentified plantation had an elaborate fining system which included insubordination (\$1.00), drunkenness (50¢), and neglect of duty (50¢) (Takaki, 1983, p.71). The Bureau found it to be true that docking for slow work was frequent. Takaki (1983, p.71) described the process. A worker's luna, if dissatisfied with the performance level, would say, "*you poho*" (out-of-luck). The assessment was typically 50¢. However, the legal violation of fining and docking for productive inefficiencies tended to be plantation-specific. Beechert (1985, p.108) found it very frequently used at Laupahoehoe Plantation to control contract wages, but not at all at Grove Farm. Likewise, intimidation through physical punishment was theoretically against the law; yet, the "black snake whip" was a common luna accoutrement and abuse by lunas an ongoing source of grievance among plantation workers (Takaki, 1983, pp.74-5; Beechert, 1985, p.245).

Pre-annexation labour control was a murky issue at best. The *Master and Servants Act* notwithstanding, the definition of ten hours as a fair day's work for a fair day's pay would imply a certain amount of progress to be accomplished within that time frame. Because the law would not allow for abatements in the absence of a court order, any fine structure would have to be unofficial. There is every reason to believe it was done prevalently; the Japanese workers complained of the practice to the Bureau of Immigration through their consul, but the absence of productivity records on individual workers can be understood within the context of the legal system (Beechert, 1985, p.111). Finally, the 1898 *Organic Act* provided that henceforth there could be no further imported contract labour and that existing contracts would be null and void with annexation as a US territory (Fuchs, 1961, p.207).

New accounting-based, labour-control techniques were introduced post-annexation, particularly new forms of labour arrangements. The simplest was the coming of a piece-rate system whereby workers contracted for completion in the short-term of a unit of work, such as cane cutting, loading, irrigating, or any number of other agricultural functions. Another short-term arrangement was day labour where transient labour, operating without a contract, could work for a daily wage with either party free to end the relationship. More long-term in nature were various tenancy, sharecropping, and subcontracting arrangements. With tenancy, a labourer could rent a small piece of land from a plantation, farm it as an independent producer, and sell the output to the plantation for a contracted price. A sharecropping arrangement featured the field hand living in the work camp and working for a minimum wage with a bonus superimposed at the time of harvest.

On many occasions, the plantations would deal with a self-organised group of labourers, typically of a common ethnic group, that would be allotted a larger piece of land. The plantation would provide seed, ratoons (cane striplings), tools, fertilizer, irrigation, and so on, and would pay a stipulated price for delivered cane. This arrangement was necessarily long-term as the growing cycle was nearly two years (22 months) in duration. The plantation would have to front the labour-gang members a subsistence wage pending the final reckoning. Timekeepers were essential because these interim payments were based upon time worked (Fuchs, 1961, pp.114-5, 119; Takaki, 1983, p.84; Beechert, 1985, p.325). It has been estimated that by 1929 one-half of all sugar labourers were under a contractual arrangement (Fuchs, 1961, p.115; Beechart, 1985, p.139).

A substantial portion of Olaa's cane was grown on lands that did not belong to the firm. A book dated 1912-13 (PSC PRV.9) identified contractors who supplied cane. Typically a *haole* name and an Asian name appear as the planters. A Mr Zimmerman, for example, had 23 different contracts, each with a different Asian individual. Apparently, Caucasians constituted an independent planter class which lived off the labour of tenants from other ethnic groups.

Occasionally labour contracts encouraged enterprise on the part of the operatives. A 7 February 1900 letter from Alexander and Baldwin (A&B), one of the Big Five factors, to McStocker (PSC 1/11) reveals how contracts incorporated economic incentives:

You are authorized to make contracts as follows: A. To assign to an association of laborers uncleared land free of rental for the term of six years in lieu of payment for clearing, but with agreement to pay for cord wood or fence posts produced from such clearing. B. To allow two acres to each shipped man on the plantation We take it for granted that the said two acres are in the nature of a perquisite to be cultivated in off hours and detached from his regular plantation field work.

One of the unique features of labour control on the Hawaiian sugar plantations was the bonus system instituted after annexation. Announced in theory by the HSPA in 1899, accounting for the bonus followed the pattern established under the monarchy of recording labourers' time at work rather than their efficiency. The bonus was a device to limit labour's mobility as leaving the plantation before the harvest would cause forfeiture of the bonus (Takaki, 1983, p.169). It was also a way the owners' cartel could respond to persistent labour shortages and organised worker resistance, as with the stoppages of 1909 and 1920. Ultimately, however, the entire wage structure was predicated on the need to ensure the field hands turned out as shown in a July 1918 letter from C. Brewer to James Webster, the manager of the Pepeekeo Plantation (HCP 1/10).

The imposition of an \$18 per month wage ceiling for Asian workers forced plantation managers to offer bonuses and incentives locally. Furthermore, A&B officials recognised that \$18 per month would not keep workers on the plantations,

and they encouraged field managers to adopt creative bonus schemes. For example, the standard labour contract for Portuguese workers in 1900 was \$20 per month for 26 ten-hour workdays, with a bonus of 50¢ at the end of each week if the labourer worked six consecutive days. The contract also included fuel and water for cooking, medicine and medical attendance, and a sufficient plot of land to raise vegetables for the worker and his family. Furthermore, the contract could be cancelled if the worker accepted a share-planting contract "where he would be assured of making more money than he will receive if he is a steady industrious man" (PSC 1/13). Notwithstanding the contract's many features and incentives, the Olaa Sugar Company was largely unsuccessful in obtaining Portuguese labour, in great part because of commensurate labour shortages on the US mainland. The archives contain examples of contracts that have numerous and creative bonus clauses, many of which were customised to attract workers from the Azores, England, Sicily, and even Nebraska. In all such cases, however, Caucasian workers received significantly higher wages than their Asian counterparts.⁴

The HSPA's bonus system, in widespread use by 1910, related the individual worker's turn out to the New York price of sugar. For 1912, for example, this profit sharing was available to workers who averaged 20 days per month in the fields and earned less than \$24. Workers were to receive as their bonus one per cent of annual earnings for every one dollar the price of sugar per ton exceeded \$70. Takaki (1983, p.86) made the point that this plan was fundamentally designed to increase the volume of labour as average turnout was 18 days. This method was cheaper than importing additional workers that could no longer be contractually bound.

It appears that the HSPA redefined the bonus annually with neither the percentage nor the number of days being the most frequent issue. Rather, the payment timetable was frequently amended, perhaps underscoring the owners' perception that the bonus functioned most effectively to curtail labour mobility. The amount of the bonus was 5 per cent and a whopping 20 per cent in 1914 and 1915 respectively (Fuchs, 1961, p.119; Beechert, 1985, p.196). A major revision took place in 1916 as the core bonus was increased to 1½ per cent per month, the bonus was paid 1/5 monthly and 4/5 at the end of each six months, and subcontractors were, for the first time, included as recipients (Beechert, 1985, p.196). In 1917, the bonus was reduced and half the amount owed was retained until year's end (Beechert, 1985, p.196). Following the 1920 strike, the number of days required to be eligible for the bonus was reduced from 20 to 15 for men and from 15 to 10 for women. Additionally, 75 per cent of the bonus was to be paid monthly (Takaki, 1983, p.168).

Lind (1955, p.71) pointed out that control of labour in Hawaii extended far beyond wages and working conditions to include the gamut of living conditions in the plantation work camps. Precedent to the end of contract labour, conditions varied greatly from plantation to plantation although they were probably better in

Hawaii than on other plantation frontiers. The monarchy tried to be protective as with the enactment that each inhabitant had to have 300 cubic feet of air space. Enforcement was impossible (Daws, 1968, p.209). Following annexation, a paternalistic improvement of living conditions was in evidence to curtail desertions and perhaps incidentally to encourage productivity (Fuchs, 1961, p.48; Takaki, 1983, p.64). Subsequently, living conditions generally improved only in the immediate aftermath of strikes and during periods when workers were leaving plantations in large numbers (Fuchs, 1961, p.48).

Productivity and cost control

Reference to the foregoing section suggests that the Hawaiian sugar plantations maintained minimal records relating to labour cost control. This inattention is especially noteworthy since the 1918 crop report showed that labour costs constituted 57 per cent of total agricultural expenses of the Olaa Plantation (PSC v. 134A). Its focus seemed to be on the number of days workers of the various ethnic groups turned out for work rather than a more characteristic tracing of the individual field-hand's productivity. A letter of 3 September 1919 from C.F. Eckart, manager of Olaa, to American Factors stated, "Cases of dismissal are rare and due to a shortage of men the plantation is obliged to be as tolerant as circumstances will permit". It was allowed that the plantation would track only "the time they lie off and the reasons therefore", information on which to base decisions when small requests were made by individuals (PSC 12/6). While records detailing individual productivity were not maintained, highly detailed cost and productivity records were kept in other areas of plantation operations.

The Olaa Sugar Company, renamed the Puna Sugar Company in 1960, was one of four plantations (Onomea, Pepeekeo, Honomu, and Olaa) controlled by C. Brewer on the Big Island. In addition to its own fields, Olaa's sugar mill was supplied by contractors of various descriptions (old, special, none, 1908, 1913, 1918, independents). The terms of these contracts were very precise as illustrated by the 1908 agreement which comprised 12 pages of text (PSC v. 165, pp.37-48). Included in the specifications was a sliding scale of payment rates based upon the New York price of sugar, the quality of the cane in terms of sugar content (8 tons of cane to produce 1 ton of sugar was typical), the agricultural functions to be performed by the plantation and the subcontractor respectively, the procedures for weighing the cane at the mill (a 5 per cent "tare" deduction became standard for measuring cane waste), etc. A 1918 crop summary (PSC v. 134A) reveals that the company produced 44 per cent of its processed cane on its own fields, and purchased the remainder from suppliers in Olaa and Puna who were classified on the basis of contractual arrangement. For each of these categories, the company maintained data on tons of cane and sugar per acre, the harvesting and delivery costs per ton per acre, as well as the purchase price.

One might rightfully expect that given this attention to subcontractor productivity, the firm would collect bounteous data on its own operations. There is a book of "field costs" 1909-34 (PSC v. 134) which contains comparative statistics for each field for each year. Herein are included the same data classifications the firm kept for its suppliers (e.g. yields and total costs per acre, per ton of cane, and per ton of sugar). However, here as well were tracked field expenses to the cent in 29 labour categories, including the "palepale" function, a definition of which has eluded our investigatory efforts. Likewise, monthly grinding reports were maintained for the mill (PSC PRV.1) which include the hours worked, the weight of cane processed, the amount and quality of the juice extracted, the sucrose component, the range of end products, etc., with totals and averages for all categories. Monthly statements appeared delineating operating expenses in 76 different categories both in totals for the month and year-to-date (PSC 82/12). Monthly repair expenses and marketing costs are also in evidence (PSC v. 134A). Olaa's archive includes a 1913 comparison of flume and railroad expenses as the two mechanisms by which raw cane was transported to the mill for processing into sugar (PSC v. 134A). Perhaps the most spectacular example of costing care is the comparative records kept for each of the four constituent plantations, comprising 36 expense categories with total costs and average costs per ton of sugar provided (PSC v. 134A).

There is no indication in the archive that Olaa Sugar deployed this wealth of data with any degree of frequency in making business decisions. John Watt, Olaa's manager, did write to Bishop & Co. in 1913 stating that planting proposed for fields K, N, 50, and 51 was being curtailed (PSC 25/14). The selection of these fields was undoubtedly based on field-specific cost and yield information. However, evidence of action at the plantation level is just not there. Where the data might have had greater impact was in Honolulu where the investment institutions, the factors, and the HSPA were located. Bishop & Co. in 1905, pursuant to a \$5,000 investment, wrote to Watt asking very direct questions that could only be answered statistically (PSC 70/10). Letters were received from B.F. Dillingham Co. (BFD) in 1900 which included analyses of Olaa cane samples (PSC 1/14). The HSPA furnished members with yield data by specific island, contrasting irrigated and non-irrigated plantations (PSC v. 134A). In 1918, the HSPA instructed plantations as to what to include in marketing expenses (HCP 1/10).

Perhaps even more insistent about a quantity and quality of statistical information was C. Brewer, Olaa's Honolulu-based factor. Brewer attempted to standardise accounting methods for all plantations under its control (letter to Webster, 11 March 1918, HCP 1/10). Brewer asked for detailed cost per ton data on the 1917-1919 sugar crops for the US Food Administration, presumably related to the war effort (letter to Webster, 2 May 1918, HCP 1/10). Another request in June 1918 called for data on horsepower and steam consumption for all power units

in the mill (letter to Pepeekeo, HCP 1/10). C. Brewer sent to Olaa in June 1917 comparative statistics of all its plantations with respect to the loss of weight and sucrose content of the 1916 crop, proclaiming the information to be "of value for comparative purposes" (HCP 1/10).

Those who generated this wealth of crop cost and yield statistics were themselves questioning their value individually and collectively. Eckart wrote to Bottomley in January 1915 (PSC 8/1):

... that comparisons of yearly expense statements by themselves mean nothing; comparisons of acreage costs mean more but likewise fall far short of giving us the proper basis; the only real measure of the headway made is the *cost of sugar per ton*. Expense statements of the kind enclosed serve their useful purpose but they are useless for crop comparisons.

Accounting and racism

Perhaps the most visible and continuous illustration of the interface of accounting and racism is the way in which plantation labour was always classified statistically by ethnic group rather than by occupational function, productivity, or any other measuring calculus. The accounting for labour at Olaa Plantation categorised the working force according to ethnicity. Monthly reports were prepared indicating the number and sex of operatives in each ethnic group. Table 2 outlines a representative return from the Olaa archive that tracked the frequency with which the various nationalities turned out to work in December 1919.

Table 2: Number labourers and time worked - 26 day basis [unskilled adult male labourers, December 1919]

Nationality	Number Labourers	Daily Average at Work	Average Days Each	Total Days Worked	Percentage Time Worked
American ⁵					
Hawaiian	13	8.88	17.77	231	68
Puerto Rican	27	16.15	15.55	420	59
Portuguese	54	39.42	18.98	1,025	73
Spanish	12	10.81	23.41	281	90
Russian	3	2.20	18.16	54 ¹ / ₂	70
Filipino	469	244.31	13.54	6,352	52
Japanese	974	827.46	22.08	21,514	85
Chinese	14	6.50	12.07	169	46
Koreans	7	3.46	12.85	90	49

Source: PSC 18/12

These data formed the basis for calculating the annual bonus which was pegged to the New York price of sugar and was paid to workers who had averaged 20 days per month in the fields or mills. The bonus represented a significant portion of the plantation worker's remuneration. In 1917 at Olaa, for instance, the bonus paid was \$308,819 on total labour costs of \$485,421 and pre-bonus profit of \$1,046,186 (PSC v. 134A). Eckart complained to A.W.T. Bottomley of Bishop & Co. in October 1916 that the bonus was responsible for "relatively indifferent work". He elaborated six weeks later that should the bonus be paid on a monthly basis, the workers would never have enough to think about leaving (PSC 8/1). However, payment only at year's end tied the labour force to the plantation for the year at least. Table 3 illustrates that the reporting was undertaken on a nationality basis but with bonus amounts determined as a function of monthly pay rates.

Table 3: Bonus paid to plantation employees (1 November, 1917 to 31 October, 1918)

Nationality	Monthly Rate of Pay			Short-term Contractors
	\$24 and under	\$24 - 50	over \$50	
American	-	-	29	
Hawaiian	15	12	4	
Puerto Rican	18	19	3	
Portuguese	36	46	26	
Spanish	18	7	-	
Russian	3	4	1	
Filipino	189	125	1	166
Japanese	203	522	1	1,253
Chinese	4	3	-	3
Korean	2	5	-	8
Others	-	-	9	-
Total	488	739 (sic)	74	1,430
Total bonus	\$24,797	\$84,442	\$30,424	\$103,162
Average bonus	\$50.18	\$114.27	\$411.13	\$72.14

Source: PSC v. 134A

Wage schemes based on race (i.e. maximum wage rates and different wages for ethnic groups regardless of productivity) enabled field managers to leverage one ethnic group against another in order to stem any particular group's demand for

wage increases. Correspondence from McStocker to BFD on 12 December 1901 illustrates this technique (PSC 2/2):

I have not yet made any contracts for cutting cane, the Japs standing firm on a rate of 32¢ a ton or if on an acreage basis \$15.00 which is the figure I understand being given at some places along the line. I have been dickering with some Chinamen on a tonnage rate of 25¢ and expect to hear from them in a day or two. In starting in I shall probably do so with Plantation labor that is Porte Rican so as to run a bluff on the Japs and Chinamen and make them think I don't need them.⁶

It has also been observed that the work camps on the plantations were rigidly segregated on the basis of ethnicity, not only because the workers wanted ethnic separation, but also because the planters could play off one group against the others (Fuchs, 1961, p.115).

In a 5 September 1899 correspondence (PSC 1/10), A&B recommended to Olaa a system whereby different coloured time tickets would be rolled up, placed into small tin cylinders, and distributed to differing categories of workers. Unfortunately, we know nothing of who was to receive which colours other than that women field hands were to be given white. Whether males were differentiated on a basis of wage level, function, or ethnic group would be mere conjecture.

While Asian labourers comprised those ethnic groups that most frequently encountered discrimination, Europeans were occasionally singled out for criticism. A 12 April 1914 letter from Eckart to Bottomley observed that "the different nationalities show a marked difference in their philosophical acceptance of the labor situation, the most complaining lot being the Spanish and Portuguese and the least complaining the Japanese" (PSC 8/1).

Not only were records maintained on the basis of nationality but the entire sugar economy from top to bottom perceived the labour force only in terms of its ethnic composition. The Hawaii Planters' Association (HPA), a local organisation of planters on the Big Island where Olaa was situated, was formed in 1900, ostensibly to determine wage rates and control runaways. The HPA's minutebooks are very brief but what is striking is the fact that every wage increase or reduction was reported on a race-specified basis (LSC 21/8, 21/9, 22/1).

The HSPA, as the organisation ultimately responsible for the importation and global control of labour, frequently categorised the worker by ethnicity and occasionally forced accounting's complicity. A letter on 11 June 1900 from C. Bulle to McStocker (PSC 1/11) described a new passbook system that the trustees of the HSPA had adopted to control Asiatic plantation workers. The passbooks included the worker's name, nationality, date of engagement, date and nature of discharge (voluntary, involuntary, or otherwise), and the average number of days worked per month. The passbooks had to be stamped and signed by the plantation bookkeeper. The purpose for maintaining passbook records was unequivocal:⁷

That each island shall form one or more bureaus for the control of its labor, and for the proper carrying out of the pass-book system as recommended; that all Asiatic laborers shall be employed through the bureau or bureaus of the various islands at a wage based on a maximum rate; each bureau or bureaus to keep a complete record of all laborers employed on their respective islands. The said maximum rate to be \$18 per month.

Another enactment of the HSPA in 1904 targeted the exclusion of Asians from managerial roles. The planters' association mandated that all skilled positions on the plantations under its auspices had to be filled by American citizens or those eligible to be so (Takaki, 1983, pp.75-6). A decade and a half later, the Labor Bureau of the HSPA observed that Filipino workers, at the point when they are unable to make the 20 days necessary to receive the monthly bonus, stop work entirely as their housing, fuel, water, and medical attention are all free (PSC 12/6, August 1919). While the specific attitudes of HSPA accountants and auditors are not available in the archive, it is apparent in many of the above activities that they served a racist organisation and participated in the implementation of racist policies.

The territorial government was a frequent ally of the planters in maintaining their racial regime. During the 1880s and 1890s, the Bureau of Immigration queried plant managers about their ethnic preferences for operatives in various categories (e.g. field workers, mill hands, teamsters). Tables were compiled on the perceived abilities and efficiencies of the ethnic groups (Beechert, 1985, pp.93-4). As discussed throughout this paper, these perceptions were supported only by data on worker turnout rather than efficiency. The government also co-operated with the planters in the early twentieth century in an effort to keep the Japanese on the plantations. Methods included the restriction of Japanese migration to the cities, restrictions placed on government jobs for ethnically Japanese, prohibitions against migration to the mainland, and the eliciting of help from the Japanese and other foreign consuls (Fuchs, 1961, pp.211-2).

Perhaps as indicative of racial stereotyping as the aforementioned accounting records are those strangely not in evidence in the archive. The Olaa Plantation, despite the exquisite detail of its crop-yield reporting and process-expense calculations, maintained no measurements of the productive efficiency of its labour force. There was labour-related accounting being done; the intricate bonus system depended upon turnout statistics of individual field hands.

It could be effectively argued that the shortage of labour militated against the maintenance of labour performance data. Since the plantation had to take what it could get in terms of a work force, all that really mattered was that the workers showed up for work. However, it is our position that efficiency data were not necessary because they were irrelevant from the racial control perspective. Workers from ethnic groups perceived to be inferior were not going to receive pay raises independently from the remainder of their ethnic groups irrespective of

individual talent. Moreover, there was little chance that a superior worker from such an ethnic group would ever be promoted into the plantation's managerial hierarchy, as evidenced by the miniscule number of Asian lunas.

Historians who have studied labour in Hawaii have pointed out how a racially diverse corps of field hands might have been desirable. First, a divide-and-rule strategy could be effectively implemented (Takaki, 1983, p.24). Second, wage differentials could be established on an ethnic basis to keep labour costs low (Daws, 1968, p.304). Third, the possibility would exist for depressing the wages of older ethnic groups on the plantation who might have been given pay raises as rewards for longevity, if not productivity (Okihiro, 1991, p.60). Finally, ethnic rivalries could be fostered as an alternative to class consciousness.

Where the persistent labour shortage did have significant impact, however, was in rendering inoperative a degree of racial control the sugar planters might have preferred. A&B had as one of its principal responsibilities the recruitment and distribution of labourers to HSPA plantations. Correspondence on 15 October 1900 from an A&B official to the Olaa Sugar Company reveals that official wage ceilings could not be adhered to in the field (PSC 1/13):

We agree with you perfectly that the Planters' combination rate of \$18 per month is a farce. It is being lived up to technically only. Most plantations – in fact a great many plantations – are paying a dollar a day for labor, but are paying it in a round-about way; that is by contract work.

Membership in the HSPA provided substantial marketing and administrative benefits and cost savings but it meant, in theory, that one plantation could not exceed maximum wage rates or employ workers from a member plantation unless they received an honourable discharge. Anecdotal evidence suggests, however, that the Association's rules were often violated. A letter from McStocker to BFD on 17 June 1901 illustrates the pressures field managers faced to lure workers from other plantations (PSC 2/1):

Minvielle [a Puerto Rican recruiter] claims that we can soon get all the Porte Ricans we want from the other Plantations and that he has only to let them know, that they will have better treatment at Olaa, etc. Of course, we do not want to pursue any such plan, but if they become dissatisfied and quit on the other plantations, we certainly have a right to employ them if we chose to do so ... Olaa was not offering and would not pay higher wages ... but we could provide a better locality and better treatment.

While HSPA's racist policies were officially sanctioned, the shortage of field hands put unceasing pressure on artificial salary caps such that they became unsustainable. Archival evidence repeatedly supports the conclusion by La Croix and Fishback (1989, p.407) that race-based wage policies "broke down in the face of competition for labor among planters". For example, correspondence on 5 July 1901 between BFD and McStocker illustrates the futility of co-operative agreements in light of severe shortages (PSC 1/14):

We know that the agreements of the Association are not adhered to and that each plantation does about as it pleases; this is the principal reason for the present labor trouble; the Plantations pull against each other, do not stand together and simply play into the hands of the migratory Japanese.

The HSPA seemingly preferred a more racist slant on the conditions that gave rise to these rules violations. The HSPA, through its Committee on Industrial Relations, assumed that the difficulties of short labour supply and high cost were functions of the inadequacy of the field workers (Beechert, 1985, p.180). A 1917 circular to plantation managers indicated that workers failed to turn out for daily work 20 per cent of the time. The HSPA's solution was to promote ethnic rivalry in an effort to reduce absenteeism (Takaki, 1983, p.69). The plantation owners, although willing to violate organisational rules in normal times, closed ranks in times of troubles (Beechert, 1985, p.211). The culmination came in the great strike of 1920 as the non-struck plantations contributed \$11.5 million to relieve the six plantations struck (Beechert, 1985, p.209). However, the 1920 strike reflected the first chink in the cartel's collective armour. Although the owners eventually won the strike, the workers learned that co-operation between and among the races was essential for the ultimate raising of living standards on the plantations.

We conclude this section on accounting and racism by summarising the observations of three labour historians who have studied the HSPA's policies. First, La Croix and Fishback (1989, pp.403, 422) examined data from 38 plantations for the 1900 period and noted race-based, labour disparities. They found that American and European workers were at the top of average rankings across job categories. However, they cautioned that these differences may not have been entirely attributable to racism because of the absence of individual-specific data on productivity. They concluded that wage-based differences could have stemmed, in part, from productivity differences between ethnic groups rather than strictly from racism.

In addition, McGowan (1995, p.7) examined Hawaiian plantation labour records for the 1900-1920 period and concluded that the HSPA's desire to maintain control over workers was the key driver of its racist plantation-labour policies. Racism was manifested in ethnic-based wage rate and job function differentials, as well as in the decision to import unskilled ethnic groups to mitigate an existing group's growing economic and political power. Furthermore, ethnic heritage (Chinese, Japanese, Filipino), rather than purely economic criteria (level of output, worker productivity), served as the fundamental measuring calculus for setting wage rates and work policies. McGowan (1995, p.3) concluded that the plantations' attempt at the "commodification" of labour according to racial rather than economic criteria can be "easily translated into racism", but that the zeal to maintain power and status differentials was the key factor underlying the racist policies.

Conclusion

Without question, ethnicity was a major determinant of wage levels and job opportunities in the Hawaiian sugar industry. Overseers and field managers were disproportionately white (including Portuguese) or Hawaiian, and different ethnic groups received different wages for performing the same task. New ethnic groups were imported, in part, to stem another group's demands for higher wages and better living conditions. Plantations, when possible, had racially mixed labour forces in order to retard a group's unified response to control. Accounting served managerial elites by reinforcing these policies, and the absence of individual productivity data meant that ethnicity served as the primary measuring calculus.

From an accounting perspective, the key factor was the absence of productivity records for individual workers. There is also no evidence that workers were measured against top performers or predetermined levels of productivity. Plantations did keep extensive records on the number of days worked and the output per acre in order to make plantation and interisland comparisons. In fact, the comparative nature of accounting records is quite impressive (e.g. comparing fields, cane yield per acre, raw sugar yield per acre, sugar extracted per ton of cane, among others). Notwithstanding the detailed records and regular measurements, however, there is little evidence showing how this information was put to use except in the case of field abandonment.

In our opinion, a chronic shortage of labour, the planters' ability to set common wage rates and work rules, and racial discrimination combined to preclude the need for individual labour performance records that could have been used to spur greater efficiency. Plantations were ultimately concerned with the productivity of the land, cane varieties, and expense control, but not with efficiency. As is often the case with nascent accounting environments, great attention is given to expenses, particularly marketing costs, and other individual components of the production process. For example, monthly records at Oloa show 76 different categories of expenses, while little heed is paid to an individual worker's job performance.

The contract labour system, although theoretically banned following annexation of Hawaii by the US in 1900, impacted accounting in that statistics for individual workers were not particularly relevant. Instead of individual records, the HSPA created a complex bonus system that was based on nationality, wage levels, and attendance (the number of days worked), but not on a worker's effort or efficiency. Simply put, labour statistics were maintained on the basis of ethnicity. The number of workers in various racial categories by wage level was correlated to specific ethnic groups without consideration to the effort or accomplishment of individual workers.

Historically sugar plantations around the globe have had one distinctive characteristic in common — a labouring force that was racially different from the managerial class (Beechert, 1993, p.56). Hopefully this exploratory study raises a

number of questions about the interface of accounting and racism that will be addressed in future research. For example, was the absence of individual productivity data intentional in order that wage rates and job functions could be based on ethnic considerations? Was the environment of the Hawaiian sugar cane industry inopportune for the collection of individual cost and performance data? Were there any differences between the use of accounting in the Hawaiian, Australian, and Puerto Rican sugar industries given the varying racial compositions of their work forces? Are there other industries or work settings where accounting and racism were similarly intertwined?

Our research has barely begun to exploit the HSPA Plantation Archives. There are thousands of cubic feet of indexed material that have yet to experience the focussed gaze of an accounting or business historian. Although HSPA plantations were constrained in the wage rates they could offer workers, they had a certain degree of autonomy in the design and use of bonuses to attract and retain workers. We expect that a comparative study of plantation bonus plans would yield results showing remarkable creativity in the use of accounting and non-financial incentives at a time of severe labour shortages, not unlike the shortage experienced in the current US labour market.

We would like to conclude with a clarion call to critical researchers, in particular, as the cohort of accounting historians most attentive to issues of social justice. Whereas great heed has been paid to theorising gender inequities, albeit typically in a presentist environment, the complicity of accounting historically in support of racist regimes has been severely understudied.

Notes

1. The "Plantation Archives" of the Hawaiian Sugar Planters' Association is an extensive collection, housed in the Special Collections of the University of Hawaii at Manoa Library. The most substantial record set is that for the Puna Sugar Company, formally the Olaa Sugar Company, 1897-1991, that occupies 287 cubic feet of shelf space. Our archival research was focussed upon these materials. Where "PSC" appears in references to archival materials, the abbreviation stands for Puna Sugar Company. However, numerous other plantations are represented. The various collections are extremely well indexed and the archival staff most helpful. Visiting scholars may be domiciled at the East-West Center, several hundred yards from the archive. Were more archives as well managed and accessible as this one, archival research would be more popular with accounting historians.
2. The authors are grateful to Professor Geoff Burrows of the University of Melbourne for providing us this piece of information. The terms "kanaka" and "coolie" are pejorative referents to Hawaiians and Chinese respectively. Likewise the word "haole" may be used pejoratively to describe a Caucasian. Typically the tone of its utilisation determines the intent.

3. Traditionally in Hawaii, the Portuguese are not considered Caucasian. As late as 1969, when one of the current authors accepted a position at the University of Hawaii, an official document requested a statement of race wherein one box only could be checked. Options included Caucasian, Portuguese, and Jewish.
4. For instance, the archives reveal that on 12 June 1901, McStocker spoke with W.L. Stark, US Congressman from Nebraska, and offered to pay white Nebraskan labourers a dollar a day for working on the Olaa sugar plantation.
5. All 22 American employees were *skilled* males.
6. It appears that Japanese workers acted in harmony to obtain wage increases for their entire ethnic group, regardless of skill and effort differentials. Thus, some might conclude that plantation managers' racist labour policies were responsive, in part, to the unified actions of an ethnic group. Without individual productivity data to argue contrarily, managers may have used these wage schemes because ethnic groups actually had different average productivity levels.
7. Officials at A&B were clearly aware that passbooks and other control devices had little impact in light of severe labour shortages (A&B letter, 17 July 1900, PSC 1/13): "With yourself, we are not very confident of any of these devices helping labor out particularly. Doubtless what is needed primarily is more labor and no device in the world can remedy that". Although they capped wages at \$18 per month, A&B officials allowed plantation managers to offer special inducements in the way of contract work. These inducements included monthly bonuses based on the number of days worked.

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