INALIENABILITY, REHABILITATION, AND INTEREST GROUP POLITICS: AN ECONOMIC ANALYSIS OF THE ORIGINS OF THE HAWAIIAN HOMES PROGRAM

by

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ABSTRACT

The Hawaiian Homes Commission Act of 1920 set aside marginal lands for Native Hawaiian homesteads with restrictions on their alienability and use, and funds for their development. The Act preserved all leased government sugar lands for the plantations, and preserved homesteads and federal construction jobs for the Hawaiians. This legislation was largely the outcome of a struggle between these two interest groups to secure benefits at the expense of each other and the Japanese. The rationale for the Act and its land restrictions was primarily to produce a public good -- rehabilitation of the dying Hawaiian race through work on the land; and secondarily to internalize an externality -- preservation of the Hawaiian way of life.

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The Hawaiians ... must get out in the sun, in the rain, and dig into the soil ... they must be like most of the farmers on the [American] mainland who are hard workers and good American citizens in their community--our ancestors were not clerks, they were farmers and fishermen, and we should be like them; it is more healthy and we will be happier ... we are gradually losing out, and the only place left for us is on these Rehabilitation lands and if we do not get in and work and think for ourselves we will be lost.

Jonah Kuhio Kalanianaole, Delegate to U.S. House of Representatives, 1902-1922

In this article we examine the origins of federal legislation, the 1921 Hawaiian Homes Commission Act (HHC Act), which set aside 5 percent of Hawaii's land for Native Hawaiians and specified restrictions on their alienation and use. The HHC Act was ostensibly designed to provide agricultural land for the Hawaiian people to promote their "rehabilitation." Yet just 70 years earlier, Hawaiians had no need for rehabilitation. In 1850, Hawaiians owned almost all of the private land in Hawaii, voted in free elections in a constitutional monarchy, and participated broadly in the economy and government. An 1848 land reform measure coupled with government land sales provided individual Hawaiians with approximately 1,850,000-1,950,000 acres and foreigners with 360,000-500,000 acres. Yet by 1893, individual Hawaiians had sold or abandoned many lands and owned only 25.73 percent of the private lands on which taxes were paid. Between 1848 and 1895, the population, political power, and economic status of Native Hawaiians declined markedly, and many Hawaiians attributed their reduced social and economic circumstances to the loss of their lands. By carefully examining the economic and political origins of the HHC Act, our goal is attain an understanding of the complex factors leading to restrictions on the alienation and use of lands granted to Native Hawaiians.

Our examination of the HHC Act's land use and alienation restrictions is informed by a recent exchange (Epstein, 1985; Rose-Ackerman, 1985; Rose, 1986) over the efficiency of restrictions on land alienation and land use. Arguments focus on whether alienation and use
restrictions stem from interest group coalitions formed to redistribute income or whether the restrictions correct market failures arising from asymmetric information, externalities, or public good provision. Analysis has proceeded by examining particular alienation and use restrictions and determining whether the restrictions can be explained by market failure. This literature has, however, not incorporated historical studies of the origins and evolution of alienation and use restrictions. One exception is McChesney (1990) who provides an analysis of restricted alienation rights in Indian reservation lands. He examines the General Allotment Act of 1887 (the Dawes Act) which established restricted property rights in land for individual Native Americans and for tribes. McChesney documents changes in property rights specifications over the next 50 years and finds that variations in Indian land rights can be best explained by the bureaucratic interests of the Bureau of Indian Affairs and the changing coalition of interest groups with a stake in Indian lands. He considers and explicitly rejects explanations for alienation restrictions based on market failure.

Historians (Parker, 1989; McGregor, 1990) have recently analyzed the origins of federal legislation establishing restricted property rights in Native Hawaiian lands, but have not carefully addressed the rationale for the imposition of land alienation and land use restrictions. In this paper we also review the origins of the HHC Act to determine whether the restrictions on alienation of HHC lands stemmed from interest group interactions to redistribute income or from the potential gains from correcting market failure. Our analysis addresses the extent to which Native Hawaiians, sugar plantations, and other interest groups were able to enhance their wealth at the expense of politically weaker groups through the HHC Act’s respecification and reassignment of land rights. We also analyze the extent to which the Act’s land restrictions can
be rationalized as a means of controlling ethnic externalities. A major part of the paper focuses on the primary purpose of the Act--rehabilitation of the Hawaiian race. We argue that the rehabilitation features of the Act were structured both to redistribute wealth to Hawaiians and to reduce Hawaiian death rates in urban areas by providing incentives for Hawaiians to work on owner-operated farms in rural areas.

Our examination of the Hawaiian Homes Program begins in Section I with a brief history of land policy in Hawaii. Section II provides a description of the changing conditions of Native Hawaiians between 1900 and 1920. In Section III we discuss the rehabilitation movement, and the passage of the HHC Act. Section IV outlines the HHC Act's final provisions. Section V analyzes interest group interactions and public choice considerations that may have affected the timing and content of the HHC Act. Section VI considers explanations for the restrictions on land alienation and land use and explores whether the restrictions were imposed to maintain a valuable asset, the Hawaiian way of life. Section VII summarizes our contributions to the literature on restricted land rights.

I. LAND POLICY: 1778 TO WORLD WAR I

When Captain Cook's ships unexpectedly encountered the Hawaiian Islands in 1778, the sailors found several distinct political entities which shared a common Polynesian culture and economy. A ruling chief held title to all lands. The ruling chief made temporary land grants to lesser chiefs who made temporary grants to land managers who made temporary grants to commoners to farm the land. Land could be redistributed after conquest by rivals or the ascent of a new ruling chief. La Croix and Roumasset (1984, 1988, 1990) documented how integration with world trade, a declining native population, the threat of foreign domination, and the
influence of Western advisors and ideas induced Hawai‘i’s government to enact a land reform program. Between 1848 and 1855 the “Great Mahele” rapidly converted the traditional system of land rights into fee-simple property rights. By 1855 the land reform program had awarded 1,619,000 acres to the chiefs, 1,495,000 acres to the government, 984,000 acres to the King (known as “crown lands”), and 28,660 acres to the common people (La Croix & Roumasset, 1990; Kame‘eleihiwa, 1992). Awards to the common people were restricted by substantial surveying fees that many commoners could not afford, a lack of understanding of the new private land rights, and confusion about the status of lands lying fallow. While these land awards contained some of the most productive lands, they were often too small (2 to 7 acres) for a family to make a living. Foreigners and missionaries received only a small fraction of lands in the Mahele and were originally not allowed to purchase land. The Hawai‘i Legislature changed the law in 1850, allowing foreigners to purchase land (Kame‘eleihiwa, pp. 298-300). Between 1848 and 1873, the government sold over 667,317 acres to foreigners and Native Hawaiians. Most remaining government lands were either barren volcanic or mountainous lands.

After and during the transition to a private property regime, sugar plantations began to purchase land from Hawaiians to consolidate tracts of land for sugar production and to secure water supplies. In July, 1876, the approval of a reciprocity treaty with the U.S. allowing duty-free exports of sugar to the United States prompted a rush by plantations to expand land holdings and acreage in cultivation. The number of plantations expanded from 20 in 1875 to 63 in 1880, while acreage planted in sugar soared from 12,283 acres in 1874 to 39,350 acres in 1882 and to 125,000 acres in 1898. The consolidation of land by the plantations was facilitated by a declining Native
Hawaiian population (see Section II). Since many Hawaiians died intestate during this period, court-appointed trustees sold many Hawaiian lands to sugar plantations and foreigners. In addition, many Hawaiians abandoned their small holdings because of the difficulty of maintaining traditional production with a declining rural population; because they lost access to lands taken over by the sugar plantations on which they had previously exercised traditional use rights; and because they believed that better opportunities could be found in the urban areas.

In 1884 Princess Bernice Bishop endowed 378,500 acres of her land (assembled from the estates of several chiefs) to a dynastic charitable estate, the Bishop Estate. By 1893, foreigners owned 1,065,016 acres of Hawaii's private taxable lands, while part- and full-Hawaiians owned only 369,002 acres (not including Bishop Estate holdings). Since reliable statistics on land ownership by ethnic group do not exist after 1893, we use data on taxes paid by ethnic group in 1893 and the assessed value of real property by ethnic group in 1919 to assess the change in Hawaiian land ownership. In 1893 part- and full-Hawaiians paid 18.62 percent of all taxes. While tax revenues included poll and school taxes, they consisted primarily of real and personal property taxes. By 1919, Hawaiians owned only 9.77 percent of the value of assessed real property. Table 1 summarizes land ownership, tax payments, and assessed real property value by ethnic groups, the crown, and the government in 1848, 1893 and 1919.

Many large sugar plantations owned only a portion of their cultivated lands, leasing the majority of their cultivated acreage from the Crown, the Government, and private parties. Crown lands had been made inalienable by the Hawaii Legislature in 1865 after King Kamehameha IV had encumbered them with mortgages. During the reign of King Kalakaua (1874-1891), undeveloped Crown lands suitable for cultivation were leased to the sugar plantations for a term
of 30 years at fixed rents. In 1915, sugar plantations cultivated 91,845 acres of their own land, 30,397 acres of government land, and 99,413 acres of leased private land.\textsuperscript{19}

The rise of large sugar plantations and the flight of Native Hawaiians to urban areas were prime factors leading to the enactment of Hawaii’s first homesteading law in 1884.\textsuperscript{20} It was hoped that the Homestead Act would check the rise of large plantations by providing new farming opportunities to Native Hawaiians desiring to remain in rural areas and to western immigrants. The Act permitted individuals to purchase between 2 and 20 acres of public lands set aside for homesteading after they erected a home on the land. There were 591 lots claimed, but only 74 lots were eventually patented by homesteaders.\textsuperscript{21} Residency and cultivation requirements were widely ignored. Hobbes (1935, p. 105) rightly observed that “[a]s an attempt to keep the land distributed in small farms and to check the tendency toward larger units ... this Act did not prove successful.”

In January, 1893 a rebel group, aided by U.S. marines from a U.S. warship in Honolulu Harbor, overthrew the Hawaiian monarchy and brought the Caucasian minority to power. The constitution of the new Republic of Hawaii proclaimed that Crown lands (915,000 acres) were the property of the government; that existing leases on crown lands would be honored; and that the government was free to use and to alienate Crown lands as it desired.\textsuperscript{22} In 1895 the Republic’s legislature repealed the 1884 Homestead Act and initiated five distinct methods by which a citizen or a group of citizens could acquire small holdings from public lands: the homestead lease, the cash freehold, the right-of-purchase lease, the special agreement of sale, and the settlement associations.\textsuperscript{23} There was no ethnic requirement for participation in any of these programs, although an applicant was required to be a citizen or to declare the intention to become
a citizen. Some homesteads could not be alienated or even leased, while others allowed the homesteader to attain fee-simple tenure. Settlement associations were set up to allow immigrants to settle in a group; six or more persons could apply for holdings in a single block of land. Through 1898, approximately 24,749 acres of public lands were allocated by the five methods.

In 1898 U.S. President McKinley reversed former President Cleveland's opposition to annexation by signing a joint resolution of Congress annexing Hawaii to the United States.\textsuperscript{24} In 1900 Congress passed the Organic Act which established the Territory's government and stipulated regulations for the management and disposal of public lands.\textsuperscript{25} The Act provided that Hawaii's land laws, including its homesteading laws, should continue in force unless Congress provided otherwise.\textsuperscript{26} The Organic Act made two significant modifications to the Republic's land laws, limiting corporate land holdings to 1000 acres and restricting new leases and lease renewals of public lands to a 5-year term.\textsuperscript{27}

After annexation the homestead programs were used less often with the exception of the Settlement Association Plan. "Homesteaders" hired by sugar plantations used this plan to effect transfers of land to sugar plantations. A group would petition for public land near plantations to be surveyed and opened; it would build a shack on the land to fulfill the requirement of erecting a dwelling, and a nearby plantation would provide other required improvements. After the land was patented, the group sold it to the nearby plantation. The use of agents to stake claims to the land parallels Libecap and Johnson's (1979) discussion of the methods used by lumber companies to claim land under the Preemption, Homestead, and Timber and Stone acts.

In 1910 Congress amended the Organic Act to change Hawaii's homesteading procedures. Allocation by auction was replaced by lottery.\textsuperscript{28} Stricter selection requirements were imposed
on homesteaders, and alienation of homesteads to corporations was restricted. While homesteading remained open to all citizens, the citizenship provision effectively prevented Asian immigrants from obtaining homesteads, as U.S. naturalization law permitted only free whites and "aliens of African nativity and persons of African descent" to become U.S. citizens. Given the large flows of immigrants from Asia after the 1876 reciprocity treaty (see below), the citizenship provision prevented the majority of Hawaii's population from claiming homesteads.

II. THE DECLINING WELFARE OF NATIVE HAWAIANS

Contact with western explorers in 1778 quickly spread new diseases (mumps, measles, influenza, smallpox, venereal diseases, cholera) to which the Hawaiian population had virtually no immunity. While there is controversy over estimates of the 1778 population (Schmitt [1968] estimated 225,000, Stannard [1989] estimated 795,343), the first accurate census in 1849 revealed a much diminished Native Hawaiian population of 78,854. In the 51 years after the 1849 census, the resident Hawaiian population continued its precipitous decline, falling from 78,854 full-Hawaiians and 471 part-Hawaiians to 29,799 full-Hawaiians and 9,857 part-Hawaiians. By 1920 the full Hawaiian population declined to 23,723 and the part-Hawaiian population increased to 18,027, thereby registering the first increase in the broadly defined Hawaiian population since western contact.

The decline in the Native Hawaiian population had been coupled with increasing urbanization since the 1830s when many Hawaiians abandoned traditional farming activities in rural areas, perceiving better opportunities servicing the whaling industry in the small urban areas of Hilo, Lahaina, and Honolulu (La Croix and Roumasset, 1990). After the Great Mahele, many commoners who were awarded small land holdings either abandoned or sold their lands to sugar
plantations and migrated to the cities to work as clerks, stevedores, teamsters, construction workers, and day laborers. In 1920 over 50 percent of the part-Hawaiians and 36 percent of Hawaiians lived in Honolulu, compared to 33 percent of the entire population.\(^{30}\)

The ethnic composition of Hawaii's population changed dramatically between 1849 and 1920. Beginning in 1865, the government and sugar industry collaborated to bring Chinese, Japanese, Portuguese, Filipino, and other workers to Hawaii to labor in the sugar fields.\(^{31}\) Immigration and a falling Hawaiian population combined to reduce the proportion of full and part-Hawaiians in the total population from 97.1 percent in 1853 to 24.5 percent in 1900 and to 16.3 percent in 1920. Beginning with annexation, U.S. immigration laws restricted flows of Chinese and Japanese workers to Hawaii, prompting the sugar industry to substitute immigrant Filipino workers. Table 2 provides data on the ethnic composition of Hawaii's population in 1853, 1900, and 1920.

The influx of foreign workers quickly changed the ethnic composition of the plantation workforce. In 1882 one of every four sugar plantation employees was full-Hawaiian or part-Hawaiian. By 1900 Hawaiian representation had fallen to three out of every 100 workers.\(^{32}\) Looking for better opportunities, many Hawaiian plantation workers migrated to Honolulu. Table 3 presents data from the U.S. Census on the occupations of Hawaiians in 1900; over 33 percent were employed as "unspecified" laborers in a variety of fields, 14.6 percent had their own farms or were overseers on sugar plantations, 10.5 percent worked in agriculture, 5.4 percent worked as fishermen, 4 percent as carpenters, and another 9.6 percent in other manufacturing activities. The remaining 22.8 percent of the workforce was scattered across a wide variety of professional, government, and trade occupations. After 1900 Japanese plantation workers began to leave the
plantations after their 4-year contracts expired and attempted to obtain employment and to start businesses in the three main urban areas. The failed 1909 “Higher Wages” strike among sugar workers on Oahu may also have prompted increased search activity by Japanese plantation workers for jobs in town. In 1900 the Japanese comprised just 15.7 percent of Honolulu’s population, but by 1910 Japanese made up 30 percent of the city’s total (Fuchs, 1961, p. 122).

The increased competition with Japanese and Chinese immigrants for jobs and the continued exodus of Hawaiians to urban areas are both reflected in the 1920 census data on Hawaiian male workers’ occupations (Table 4). Hawaiians with their own farms or working as overseers declined from 14.6 percent of the workforce in 1900 to 3 percent in 1920. Farm laborers expanded from 7.3 percent of the workforce in 1900 to 15.2 percent in 1920. This indicates that Hawaiian farmers sold their land, with many continuing to work as farm laborers and others moving to urban areas. In 1890 approximately 7.7 percent of the male Hawaiian workforce were fisherman; 79 percent of all fisherman were Hawaiian with the remainder mostly Chinese. Increasing competition from Japanese fishermen reduced the percentage of Hawaiians working as fishermen from 5.4 percent in 1900 to 2.8 percent in 1920. Only 26 percent of all fisherman were Hawaiian in 1920. In 1880, nearly all longshoremen were Hawaiian; during the 1880s they began to be gradually replaced by Chinese workers whose contracts on the sugar plantations had expired (Beechert, 1991). By 1920 only 49.9 percent of the dock workforce was Hawaiian. Hawaiians working as clerks increased from 2.7 percent of the labor force in 1900 to 5.2 percent in 1920, indicating a movement from blue-collar jobs to low status white-collar jobs. In spite of an increase in the percentage of the labor force working in professional service, the increasing competition from the children of Japanese and Chinese immigrants painted a bleak
picture of the future for many Hawaiians.

The 1920 Census also reveals that secondary school enrollment of Hawaiians lagged behind other ethnic groups. Among children aged 16-17 living in Honolulu in 1920, 56.5 percent of Japanese, 57.3 percent of Chinese, 63.8 percent of Caucasians, and 51 percent of Hawaiians were enrolled in school (Table 14, p. 1183). Adult male labor force participation rates also lagged behind those of other groups. In 1920, 78.8 percent of full-Hawaiian males, 60.5 percent of part-Hawaiian males, 85.6 percent of Japanese males, 82.5 percent of Chinese males, and 80.3 percent of Caucasian males participated in the labor force (Table 16, p. 1271). Adult female labor participation rates were also lower for full-Hawaiians (7.7 percent) and part-Hawaiians (13.7 percent) than the general population (20.1 percent).

The general price inflation of World War I was coupled with relative price increases for such Hawaiian food staples as poi and fish. “In 1914 the selling price of a 100-pound bag of taro from the farmer to the poi mill was $1.25 ... in the early part of 1918, it was $2.05” (McGregor, p. 11). Disruptions in shipping during the war and meat rationing increased the price of fish “by almost 100 percent. For example, fish that normally had sold for 20 cents a pound sold for 35 to 40 cents a pound” (McGregor, p. 10). Hawaiians complained about the higher prices and noted that poi, the traditional Hawaiian food manufactured from the taro plant, was now grown by Chinese farmers, processed in Chinese poi mills, and distributed by Chinese and Japanese trade networks.

III. THE REHABILITATION MOVEMENT

Local Hawaiian civic clubs bemoaned the concentration of Hawaiians in crowded urban tenements, blamed high death rates on the urban crowding, and began to contemplate plans for
the "rehabilitation" of the Hawaiian race.\textsuperscript{37} McGregor (1990, pp. 1-4) identifies the November, 1914 formation of the Hawaiian Protective Association as the signal event which prompted Hawaiians to undertake political activity to rehabilitate the Hawaiian race.\textsuperscript{38} The Association published a newspaper, engaged in social and educational work in the community, and was active in a 1918 campaign against run-down tenement housing. Public discussion among Hawaiians of their changed economic circumstances and their increasing concentration in urban areas intensified.

During 1918, Princess Kawananakoa toured eastern and midwestern farm districts in the United States, gathering information about wartime measures which returned urban workers, particularly women, to the farm. Upon her return to Hawaii she urged Hawaiians to return to agricultural occupations and enterprises to avoid the ills of urban crowding.\textsuperscript{39} The Hawaiian Protective Association drafted a resolution urging that Hawaiians be allowed to homestead government lands when leases to sugar companies expired. Leaders presented the resolution in December, 1918 to John Wise, a Hawaiian Republican member of the Territorial Senate. Wise announced his plan for rehabilitation of Native Hawaiians in December, 1918.\textsuperscript{40} His plan focused on Hawaii's homesteading laws. Upon petition of 25 qualified individuals, the territorial government was required to open agricultural lands to homesteading whether unoccupied or under lease with the right of withdrawal.\textsuperscript{41} Some leases of the government's rich sugar cane lands had expired during World War I, but President Wilson had issued an executive order preventing their release for homesteading during the War.\textsuperscript{42} Other leases were scheduled to expire over the next few years. Wise introduced a resolution in the Territorial Senate (SCR 2) asking Congress to allocate some part of the public land specifically for Hawaiian homesteaders rather than
homesteaders from all ethnic groups. Wise's resolution (SCR 2) was passed by the Territorial Legislature in April, 1919.

The Territorial Legislature also passed a second resolution (HCR 28) containing other amendments to the Organic Act desired by sugar interests. The proposed amendments included a repeal of the 1000-acre restriction on corporate landholding, a ban on homesteading government sugar lands, and salary increases for legislators and territorial officials.

Governor McCarthy with the Territorial Legislative Commission (composed of Hawaiian Senator Wise, part-Hawaiian Representative Lyman, and two other legislators) journeyed to Washington, D.C. to testify in hearings in early February, 1920 before the U.S. House Committee on Territories. The Territorial Legislative Commission had agreed to emphasize HCR 28 to the House Committee in their testimony. To the chagrin of McCarthy, Wise's testimony before the House Committee caught the eye of several committee members, and they focused their attention on both SCR 2 and HCR 28. Secretary of the Interior Lane also testified strongly in favor of the rehabilitation resolution.

The two resolutions were "merged" into HR 12683 and introduced to Congress by Delegate Kuhio on February 21, 1920. HR 12683 did not allow for the opening of government sugar lands to homesteading. Instead it provided for a $1 million fund to finance development of second-class agricultural lands to be set aside for Hawaiians. Funding for this program would come from rents on government sugar lands and receipts from water licenses. Leases to Hawaiians would be for 999 years, and individuals with any Hawaiian ancestry were eligible for the program. Congress retained the power to decide whether to release the sugar lands for homesteading or to continue leasing the lands at auction. All parties involved understood that
the bill meant the end of the Territorial Legislature's proposal to reserve some sugar cane lands for homesteading by Hawaiians.

After the Territorial Legislative Commission returned to Hawaii on March 31, 1920, its members became aware of opposition by Native Hawaiian groups, by Island newspapers, and by the Hawaii Chamber of Commerce to the bill's provisions to return Hawaiians to the land. After discussions between the various parties and deliberations by the U.S. House Committee on Territories, a new bill (HR 13500) was introduced which made significant changes to HR 12683. Important changes included restricting access to individuals who were at least 1/32 Hawaiian; shortening the duration of leases from 999 to 99 years; specifying the particular tracts of lands to be placed under control of the rehabilitation program; and transferring from Congress to the territorial administration the right to decide whether to lease the territorial government's sugar lands or to open them to homesteading. HR 13500 passed the House on May 22, 1920, but was not acted upon by the Senate during the remaining sessions of the 66th Congress.

After the failure of HR 13500 to be considered by the 66th Congress during its lame duck session in 1921, Delegate Kuhio returned to Hawaii to fashion a more acceptable bill. After extensive discussions, the Legislature passed new resolutions endorsing amendments to HR 13500. S. 1881 was endorsed by the Territorial Legislature in April, 1921 and quickly introduced in the 67th Congress. The House and the Senate passed S. 1881 in June, and President Harding signed the legislation on July 9, 1921. We discuss the final version of the HHC Act in the next section.

IV. THE HAWAIIAN HOMES COMMISSION ACT

The HHC Act contained no preamble specifying its purpose, but one generally recognized
purpose of the Act was the "rehabilitation of the Hawaiian race." The HHC Act designated certain public lands as Hawaiian home lands and transferred their control to the newly created Hawaiian Homes Commission. The Commission consisted of the territorial Governor and four appointees of the Governor, three of whom had to be at least 50 percent Hawaiian.

The HHC Act enabled the Commission to lease the lands as homesteads to Native Hawaiians for a term of 99 years; lands not homesteaded were to be returned to the territorial land commissioner. Homesteaders could obtain 20-80 acres of agricultural land, 100-500 acres of first-class pastoral land, or 250-1,000 acres of second class pastoral land. The annual rent on leases, regardless of acreage, was one dollar, and there was a moratorium on county property tax payments for 5 years. Community pastures could be designated by the Commission. A lessee had to occupy and begin to use or cultivate the site within one year after the lease was made and to continue to cultivate or use it. The Commission was given the authority to make rules and regulations governing the occupancy and use of the land. The Commission could lease or use not more than 20,000 acres of Hawaiian home lands for settlement of Native Hawaiians within any 5-year period.

Lessees had to be at least 50 percent Native Hawaiian. Upon the death of a lessee, the lease passed to statutorily-specified relatives only if these relatives satisfied the blood quantum requirement. A lessee was allowed to transfer or mortgage his lease only with the permission of the Hawaiian Homes Commission and only to Native Hawaiians who satisfied the blood quantum requirement. Subletting was strictly prohibited. A lessee's interest in the Hawaiian home lands could not be attached, levied or sold by court process.

The HHC Act prohibited lessees from applying for loans under the 1919 Farm Loan Act
of Hawaii. Combined with the prohibition on mortgaging the land to a non-Hawaiian, the Act's provisions effectively cut off the homesteader from most private and governmental sources of capital. The only source of capital for the homesteader, beyond personal savings and loans, was the Hawaiian Homes Loan Fund which was authorized to loan up to $3,000 per homesteader. In effect, the HHC Act set up the Hawaiian Homes Commission as a monopoly supplier of capital to the homesteader.

The Hawaiian Homes Loan Fund was the Commission's only fund. It could be used to pay the Commission's operating and capital costs as well as make loans to homesteaders. All revenues from the leasing of public lands "made available" to be Hawaiian homelands and 30 percent of the revenues from the leasing of territorial sugar lands and receipts from water licenses were to be accumulated in the fund until it reached $1,000,000. The Commission could also request the Territorial Legislature to issue revenue bonds for water and other development projects.

Section 203 of the Act designated 203,300 acres as "available lands" for homesteading. These lands excluded all acreage in sugar cultivation and were therefore less fertile and accessible to water. The Act stipulated that over the first 5 years of the program, only 33,700 acres on Molokai, and 4,200 acres on the island of Hawaii could be used by the Commission for homesteading. Following this experimental period, more Hawaiian home lands could be released upon the approval of the Secretary of the Interior and Congress.

V. INTEREST GROUP POLITICS & THE HHC ACT

A. INTEREST GROUPS IN HAWAII

The passage of SCR 2 and HCR 28 in 1919 and support for the final HHC legislation in
1921 by the Territorial Legislature was the outcome of a struggle between several interest group. Hawaiians with 50 percent or more Hawaiian blood and the sugar plantations were both strong enough to incorporate benefits for themselves in the resolutions forwarded to Washington. These benefits were primarily obtained at the expense of Japanese and other non-Hawaiian homesteaders and workers. At the time of the passage of the HHC Act, Hawaiians had substantial representation in both houses of Hawaii's Territorial Legislature. In the House 21 of 30 representatives were part- or full-Hawaiian, and in the Senate 7 of 15 senators were part- or full-Hawaiian. Moreover, almost all Hawaiians were members of the Republican party which had large majorities in the Senate (14-1) and in the House (24-6) in 1919. Most Hawaiian legislators continued to back the HHC legislation even after provisions for Hawaiian homesteading of government sugar lands were removed from the legislation. Hawaii's delegate to the U.S. House of Representatives lobbied hard in Congress for passage of the HHC Act. Senator Wise supported the HHC Act despite the great differences between the final legislation and his original proposal. Why did Hawaiian legislators support a homestead program on marginal agricultural lands?

There are three main reasons why Hawaiian legislators may have supported the HHC Act. The first reason was that the Act set aside for the exclusive use of Hawaiians, a large amount of land, some of which was arable. Of course, Hawaiian legislators preferred that some of the more fertile, irrigated sugar lands be designated for homesteading. While the reach of Kuhio's original proposal encompassed the sugar lands, the reality was that under the Territory's existing homestead law (as amended by Congress in 1910), Hawaiians were already losing access to government lands made available for homesteading. From 1900 to 1919, 37.1 percent (1,113 of
3,000) of the successful applicants for homestead lands were Hawaiian or part-Hawaiian (Fuchs, p. 256). Near the end of the decade, the allocation pattern changed. In a 1918 lottery drawing for homestead lands, 25 percent of the lots were awarded to young Japanese citizens and only 12.9 percent to Hawaiians. After 1920, the Hawaiian share of new homestead awards would have likely declined further, as the population of young Japanese citizens who were eligible to apply for homesteads was rapidly increasing.

The second reason why many Hawaiian legislators supported the HHC Act is that it provided territorial revenues (from leases of sugar land and sales of water licenses) for program operations, land and irrigation development, and loans to homesteaders. While sugar and pineapple companies had previously rejected HHC land on Molokai as suitable for agricultural development, HHC funds would subsidize water projects to bring water to Hawaiian farmers on HHC lands. Farming which was unprofitable without subsidization might well be profitable with subsidization. The HHC Act's provision of $1,000,000 for the Hawaiian Homes Loan Fund was adequate for financing the experimental phase of the program and with success could be augmented by the Territorial Legislature.

The third reason why Hawaiian legislators supported the HHC Act has been strictly overlooked in the literature. Hawaiian construction workers benefitted from the HHC Act because it added a new section to the Organic Act specifying that "no person shall be employed as a mechanic or laborer upon any public work carried on in the Territory of Hawaii by the Government of the United States, whether the work is done by contract or otherwise, unless such person is a citizen of the United States or eligible to become such a citizen." This new provision restricted competition with Hawaiians for work on federal construction projects, as
Japanese immigrants to Hawaii were neither citizens nor eligible to become citizens. Nonetheless, Delegate Kuhio stated that "the rehabilitation provisions of the bill are not of such tremendous importance ... There is, for instance, the provision for prohibiting the employment of alien labor on federal construction work. This is most important in my mind, but has not received due consideration".48

An examination of specifications and contracts for public works by the Army Corps of Engineers during the 1920s reveals that the language of the HHC Act was exactly replicated in an "alien law" provision of these documents.49 Federal construction projects in Hawaii during the 1920s involved work on Pearl Harbor facilities, military bases, and Army Corps of Engineers work on Hawaii's harbors.50 We have, however, been unable to document the extent of Hawaiian employment on these projects. (Territorial legislation already prohibited the use of alien labor on public works projects conducted by the territorial government.) The protection granted to Hawaiian mechanics and laborers was temporary, as the children of Japanese immigrants were citizens by virtue of their birth in the United States, and large numbers of Japanese citizens entered the working population during the late 1920s and the early 1930s.

Benefits did not accrue to all Hawaiians. Only Hawaiians satisfying the 50 percent blood quantum requirement were eligible for benefits under the HHC Act. The economic theory of regulation explains why access to the program was restricted to individuals who were at least 50 percent Hawaiian. Stigler (1971) has argued that interest groups tend to be politically influential when they are large enough to command significant voting power but small enough to organize for political action and to receive significant per capita benefits from legislation.51 A similar argument also applies to the construction of legislation by politicians acting as political
entrepreneurs (Noll, 1989). Politicians who are maximizing votes have incentives to limit the size of the group eligible for benefits to ensure that per capita benefits are large enough to motivate the group to support the politicians with votes and contributions. While only 7 percent of Hawaii's population was part-Hawaiian in 1920 (compared to 9.3 percent full-Hawaiian), Hawaii's high rate of interracial marriage was likely to increase the percentage of part-Hawaiians. In fact, the ratio of part-Hawaiians to full-Hawaiians increased from .76 in 1920 to 1.25 in 1930 and to 8.07 in 1960. Awarding HHC Act benefits to less-than-50-percent-Hawaiians would create problems with allocating available land. Competition for available land within the larger group would dissipate rents from the HHC Act and reduce the likelihood of beneficiaries supporting the politicians backing the program.

Sugar plantations and factors, the most powerful business interest groups in Hawaii, also lobbied at the Legislature in support of the final HHC legislation. The final version provided them with two distinct benefits. First, the Act repealed Section 55 of the Organic Act which restricted corporations from purchasing more than 1,000 acres of public land. Sugar plantations had circumvented the Organic Act's restrictions on land holdings by setting up new corporations with the same sets of owners and officers as the sugar plantation. At the time of the bill's passage, the U.S. district attorney for Hawaii, Robert D. Breckons, was preparing a suit challenging the plantations' use of such corporations to circumvent the Organic Act's restrictions. Passage of this provision allowed sugar plantations to end their use of multiple corporate entities to circumvent the Organic Act's restrictions on landholdings.

Second, the Act amended Section 73 of the Organic Act to allow the Territorial Land Board to exempt government sugar cane lands from Hawaii's homesteading laws. Prior to this
amendment, Section 73 required public lands to be opened for homesteading upon petition of 25 citizens. Japanese plantation workers, who were likely to have good information about which parcels of land were the most productive, were prevented from homesteading. Since the 1910 amendments to the Organic Act barred homesteaders from selling their lands to corporations, the sugar plantations would have been forced to negotiate leases with numerous small land owners. By preventing the fragmentation of the government lands, the plantations reduced their cost of producing sugar.

Ranching interests, particularly on island of Hawaii, were opposed to the HHC Act. They were, however, even more opposed to the 1919 bill (HR 12683), as it allowed for the immediate release of the specified Hawaiian home lands for homesteading. The final legislation restricted implementation to the island of Molokai and limited tracts on the island of Hawaii for the first 5 years of the program. It also allowed for government lands leased to private parties at the time of the passage of the Act to be withheld from the Hawaiian Homes Commission until lease expiration. These clauses had the effect of moving the loss of ranching lands at least 5-15 years into the future, thereby reducing the expected present value of lost economic rents to the ranchers. This analysis helps explain the milder opposition of ranching interests to the 1921 bill.

Legislators also supported the Act because it raised their stipends for a regular legislative session from $600 to $1,000; their stipend for a special legislative session from $200 to $500; and their mileage for legislative sessions from 10 cents to 20 cents a mile. While it is unlikely that legislators explicitly traded their votes for higher salaries, the bundling together of legislative stipends and the land programs increased the benefits to legislators from voting for the package.

A summary of which groups gained and lost from the HHC Act may help to clarify
matters. Sugar growers unambiguously gained from the HHC Act and ranchers lost. Legislators gained higher stipends and did not lose support in the 1920 elections. The net impact on Hawaiians is more difficult to analyze. While Hawaiians lost the opportunity to homestead some government sugar lands, they gained access to second-class agricultural lands and government subsidies for their development. They also gained federal construction jobs. The big losers were the nisei, the second-generation Japanese citizens precluded from homesteading government sugar lands by their closure to homesteading, and the issei, the first-generation non-citizen Japanese immigrants who were excluded from federal construction jobs.56

B. INTEREST GROUP POLITICS IN THE U.S. AND THE SUPPLY OF LEGISLATION

The success of a bill in Congress depends not only on the gains and losses of interest groups in Hawaii, but also on the gains and losses of interest groups on the U.S. mainland. The primary interest groups represented in the Congress were the growers of cane and beet sugar in the United States who were competing with the Hawaiian sugar growers and the California plant that refined Hawaii's raw sugar.

Interest group support is a necessary but not a sufficient condition for a bill's passage. The ability of politicians responsive to these groups to steer the bill through the machinery of Congress is also important. Since House and Senate committees review bills prior to reporting them for a vote, the composition of congressional committees has a significant impact on a bill's chances of success (Shepsle and Weingast, 1987; Weingast and Marshall, 1988). Committees are, of course, not random collections of legislators. As Alston and Spiller (1992, p. 99) point out, "politicians self-select across committees." Member self-selection can be motivated by the general importance of the committee's subject area to constituents or by particular pieces of
legislation that are likely to be considered by a committee during that session of Congress. In addition, committee chairmen have traditionally been particularly influential in determining legislative outcomes.

An earlier version of the Hawaiian Homes Commission Act (HR 13500) passed the House on May 22, 1920, but was not acted on by the Senate during the next two sessions of the 66th Congress. Vauss (1962) blames the failure of HR 13500 to pass to the objections of Senator Williams of Mississippi, to testimony from Hawaii citizens opposing the bill, and to confusion over whether the Hawaii Chamber of Commerce supported the bill. It may, however, also be useful to examine the composition of the Senate and House Territories Committees in both the 66th and the 67th Congress and consider whether changes in committee composition contributed to the Senate's approval of the revised bill in June, 1921.

Charles Curry of California chaired the House Territories Committee in both Congresses. This is important, as virtually all of Hawaii's raw sugar was sent to San Francisco for refining at the Crockett, California refinery operated by the C&H Sugar Refining Corporation, a cooperative controlled by Hawaii's sugar plantations. Provisions in both HR 13500 and S 1881 prevented homesteading on rich sugar lands, thereby ensuring a larger flow of sugar to the California refinery, higher profits and employment, and a tendency toward lower sugar prices. Curry was also known to be "raddly" anti-Japanese. The restrictions in both bills on alien homesteading and employment on federal construction projects in the Territory may have strengthened his support of the bill.

We focus on the Senate Territories Committee, as opposition in the Senate killed HR 13500 during the fourth session of the 66th Congress in the winter of 1921. Table 5 lists the
members of the Senate Territories Committee by their state and party affiliation. Three key changes in committee composition across the two Congresses are notable. First, after Harding's landslide victory in 1920, the Republicans had a more secure majority in the Senate (59-37 in the 67th Congress compared with 48-47-1 in the 66th Congress) and on the Senate Territories Committee (8-5 in the 67th Congress compared to 7-5 in the 66th Congress). Since the bill's patron was Delegate Kuhio, a Republican, party discipline was more likely to be sufficient to pass the bill in Committee and on the Senate floor. Second, the Republican majority on the Committee now contained a Senator from California (Johnson) who would have the same interests in preserving employment at the C&H Sugar refining mill as the Chair of the House Territories Committee (Curry).

Finally, by maintaining Hawaii lands in efficient large-scale sugar production, the legislation had the potential to produce a small decrease in the price of cane sugar and in the price of a cane sugar substitute, beet sugar. Senators from states without cane or beet sugar cultivation were more likely to favor the bill because of the (marginal) positive impact on consumers from lower sugar prices, while senators from states with a sugar or sugar beet industry were more likely to be opposed to the bill because of its (marginal) negative impact on the price of sugar produced in these states. Table 6 presents state production figures in 1919 for beet and cane sugar.

It is noteworthy that the Senate Territories Committee in the 66th Congress had five senators from Western states with substantial beet sugar acreage (Borah-Idaho, Smoot-Utah, Phelan-California, Nugent-Idaho, Jones-Washington); three of these senators were members of the Committee's majority party. The same Committee in the 67th Congress had only four
senators from states with beet or cane sugar industries (Johnson-California, Cummins-Iowa, Harris-Georgia, Boussard-Louisiana); only two of these four senators were members of the committee's Republican majority. Moreover, one of two senators in the majority party who was from a sugar beet-producing state (Johnson-California) had, as we noted above, an offsetting interest in supporting the sugar refining facility in Crockett, California which processed Hawaii's sugar. Thus, the number of senators in the Committee's majority with interests opposed to the bill fell from three to one with the transition from the 66th to the 67th Congress.

The switch in April, 1921 from President Wilson, a Democrat, to President Harding, a Republican, was also significant in passing the HHC Act. Kuhio had stated several times that he believed President Wilson would not sign HR 13500 because of its prohibition on employing aliens on federal construction projects in Hawaii. Secretary of War Baker had publicly expressed his opposition to this provision. Increases in construction costs for new and upgraded defense facilities may have constituted one reason for the Secretary's opposition. Another reason for his opposition surely was that the provision conferred substantial benefits on a group, Native Hawaiians, which consistently voted for Republican delegates to Congress and to the territorial legislature after annexation in 1900. By contrast, President Harding would be rewarding a group which regularly voted for his party.

VI. EXPLANATIONS OF RESTRICTIONS ON PROPERTY RIGHTS

A. CROWN LANDS HELD IN TRUST

HHC lands are composed of public lands that were crown lands prior to the 1893 revolution. There is some evidence that Kamehameha III created the crown lands in 1848 to differentiate them as his private property in the event that a foreign power annexed Hawaii
(Spaulding, 1923). After the death of Kamehameha IV in 1864, the government learned that some crown lands had been mortgaged and sold. In 1865 the Kingdom of Hawaii enacted legislation to prohibit the mortgage or sale of crown lands. One could view the 1895 decision of the Republic of Hawaii to incorporate the crown lands into the public domain as confiscation of the King's private property without just compensation. Given the King's role as the representative of the Hawaiian people, the new public lands could be considered to be for the use of the Hawaiian people and to be morally inalienable given the restrictions enacted in 1865 by the legislature of the Kingdom of Hawaii. At the 1920 Hearings before the U.S. House Committee on Territories, Senator John Wise argued that while the Great Mahele set aside one-third of Hawaii's land for the common people, they had received only 28,000 acres. The Hawaiian people believed that "the Crown lands represented the remainder of the lands held in trust for them."

There is, however, no evidence that the King was holding the land in trust for the common people. The common people received no income from the lands—the income accrued to the monarch. Moreover, the common people had no use rights after the 1848 Mahele. The notion of a land trust stems only from the wide disparity in land allocation rather than from the historical record.

B. PREVENTING UNWISE TRANSACTIONS

It is widely believed that individual Hawaiians were harmed by unwisely selling their newly acquired fee-simple rights in land during the second half of the nineteenth century and that restrictions on alienating government lands awarded to Hawaiians under the HHC Act were necessary to prevent further harm. Kame'eleihiwa (1992) has argued that after the Great Mahele
established private property in land in 1848, Hawaiians sold their lands to foreigners at artificially low prices without understanding how market and property institutions worked. She cites several well-documented examples (pp. 306-310) in which Hawaiians with large landholdings were victims of fraud. Her analysis also provides many examples of sales by probate courts or estate trustees to foreigners after Hawaiian landowners died intestate at very young ages. In addition, after the 1876 reciprocity treaty with the United States, sugar companies' valuation of the land soared, and plantations competed to purchase lands from Hawaiians and all other willing sellers. In sum, many Hawaiians sold their rural lands and migrated to urban areas in search of better opportunities during the second half of the nineteenth century.

The unanticipated event that led to ex post regret among Hawaiians concerning earlier land sales was the exodus of immigrant workers from the plantation. Between 1880 and 1920 Japanese and Chinese workers left the sugar plantations in search of better opportunities in urban areas. The intensified competition for urban jobs and the 1893 revolution led to a diminished social and economic status for Hawaiians who blamed the loss of lands for their diminished circumstances.

Restrictions prohibiting transfers to non-Hawaiians would, however, not prevent Hawaiians from engaging in unwise transactions. If some Hawaiians still did not understand private property, market transactions, or the value of land, the Act's alienability restrictions would not prevent these Hawaiians from being exploited by other Hawaiians. Preventing unwise transactions does not appear to be an important feature of the HHC Act. Instead, the HHC Act's provisions appear to be structured to prevent sale by Hawaiians as a group. Since the emphasis is on maintaining group ownership rather than preventing unwise transactions by individuals, we
conclude that the HHC Act was structured to accomplish other goals, such as the control of ethnic externalities or rehabilitation.

C. REHABILITATION

A major argument behind the HHC Act's restrictions on property rights stems from the Act's ostensible purpose: to rehabilitate Hawaiians by making them into owner-operators of small farms and ranches. In 1919 Senate Concurrent Resolution No. 2. clearly stated one major facet of a rehabilitation program:

WHEREAS the distribution of lands under the Kingdom of Hawaii, whereby the power to alienate the same has resulted in the loss to the Hawaiian people of a large part of their original birthright so that the members of the race now constitute a large part of the floating population crowding into the congested tenement districts of the larger towns and cities of the Territory under conditions which will inevitably result in the extermination of the race; ... 

The reference to the "extermination of the [Hawaiian] race" is striking. Death and birth rates by nationality in 1919 are summarized in Table 7. The Hawaiian death rate (39.42 per 1000) is markedly higher than the death rates for other major groups (6.26-18.55 per 1000). The high Hawaiian death rate is coupled with a Hawaiian birth rate (29.16 per 1000) below the average birth rate for all groups (34.76 per 1000).66 In the urban areas where Hawaiians were concentrated, the ratio of deaths to births was much higher than in the rural areas. In his testimony before the House Territories Committee in 1920, Akaiho Akana indicated that a return to agrarian pursuits in rural areas would lower death rates.67 Senator Wise argued before the Committee that it was the alienation of Hawaiians from the land that was causing the decline of the race.68

In this section we examine whether the rehabilitation program was structured to produce a public good, the prevention of the extermination of the Hawaiian race. The HHC Act's
mechanism for reducing Hawaiian death rates was to structure the rehabilitation program to move Hawaiians from the urban areas with high death rates to the rural areas with low death rates. One possible mechanism involves a lower death rate for the individual who moves from the urban to the rural area. In this case the HHC Act has the effect of creating institutions which facilitate this migration. A second mechanism involves a positive externality conferred on urban Hawaiians. By migrating to a rural area, congestion is reduced and urban death rates among Hawaiians fall. While the second mechanism may have been operating, it is not necessary condition for a reduction in overall death rates—the first mechanism would suffice.

In Section III, we documented that Hawaiians were losing out to Japanese and Chinese competition in urban areas and found that the Hawaiian labor force participation rate was below the rates of other ethnic groups. The original Senate Resolution petitioning for rehabilitation did not mention hard work on allotted public lands as part of the proposed rehabilitation program, but there are numerous references to such a coupling later in the legislative debate. For example, on April 22, 1921, Governor McCarthy, in reply to a question at the Hawaii State Legislature's debate on the final HHC legislation, stated:

If we give the native Hawaiians the best quality lands, they will sit on the fence and play the ukulele and let the Japanese do the work. I believe in having them work. If the native Hawaiian would get out and work, and make a good living for himself and his family by the sweat of his brow, the race would flourish.

McCarthy's statement clearly links improvement of the welfare of Hawaiians with the necessity for increased labor force participation and hard work. The Act's provisions requiring Hawaiians to work their allotted lands individually may have been intended to revive Hawaiians' confidence in their ability to independently achieve goals; this stands in contrast to their urban dependence on a landlord for housing and an employer for income. If the encouragement of individual work
effort on owner-operated farms is understood to an integral part of the rehabilitation effort, then the HHC Act's restrictions on land use and land alienation become easier to understand. In the analysis below, we identify six provisions of the HHC Act which were intended to encourage Hawaiians to work on the allotted lands. The requirement of working the allotted rural land induces migration from urban areas and could, thereby, reduce the death rate of Hawaiians.

First, the HHC Act prohibited the subleasing of land to members of other ethnic groups.\textsuperscript{59} If a Hawaiian lessee were to sublease his tract to a non-Hawaiian, then the Hawaiian lessee could remain in Honolulu or Hilo as an absentee landlord and collect rents from the land. The law's focus on work by Hawaiians to rehabilitate the race would then be subverted. Also, if the lessee were to remain in the urban area, it would be less likely that the rehabilitation program's goal of reducing the death rate of Native Hawaiians would be achieved.\textsuperscript{70}

Second, the HHC Act prohibited the subleasing of land to other Hawaiians.\textsuperscript{71} Without such a restraint, some Hawaiians could find it profitable to lease the allotments of other Hawaiians and begin larger scale production. If the larger farms were more capital intensive and used less labor per acre, then some Hawaiians with allotted land would not be employed on the larger unit and would have incentives to return to urban areas. By reducing employment opportunities for Hawaiians on HHC lands, there would be a lower likelihood of achieving the goal of increased labor force participation.

Third, the HHC Act raised the cost of hiring non-Hawaiian labor.\textsuperscript{72} The restrictions on subleasing applied to structures as well as to the land and were interpreted by the Hawaiian Homes Commission as prohibiting hired workers from living on the tract while they were laboring on the land. Given the long distances to other residential areas, this restriction would
reduce the use of non-Hawaiian labor on Hawaiian home lands and thereby induce the owner-
operator and his family to supply more "work in the sun." Of course, the use of non-Hawaiian
labor on HHC lands would have also increased competition with the sugar plantations for non-
Hawaiian labor. While this provision is consistent with a rehabilitation interpretation of the HHC
Act, sugar companies may also have supported its inclusion because it reduced the demand for
farm labor by competitors in the land market.

Fourth, the HHC Act allowed homesteaders, with Commission approval, to transfer,
mortgage or pledge their land to another eligible Hawaiian.73 (The HHC Commission allowed
many transfers in the 1920s.74) This provision is consistent with the emphasis on work in the
rehabilitation program. HHC lands were insufficiently large to accommodate all Hawaiians
applying for HHC lands. If an HHC lessee could find better opportunities in the urban area, then
the HHC tract could be released for another Hawaiian lessee. The exchange would benefit both
parties as well as rehabilitation goals. While rehabilitation proceeded by reviving traditional ties
of Hawaiians to the land, it was unnecessary to bind a particular Hawaiian to the land to achieve
this goal.

Fifth, the HHC Act also allowed the Hawaiian Homes Commission to cancel a land lease
if the lessee did not "occupy and commence to use or cultivate the tract ... within one year after
the lease is made".75 (The HHC commission cancelled many leases during the 1920s after lessees
failed to fulfill this requirement.76) This provision is also consistent with the HHC Act's focus
on agrarian work as necessary for rehabilitation. In the absence of this provision, some Hawaiian
lessees would have chosen not to farm their tracts immediately because the land rent was
negative. By providing for cancellation, the HHC Act provided additional incentives for
Hawaiians receiving land allotments to leave the urban area more quickly and to promote a faster reduction in the Hawaiian death rate.

Sixth, the HHC Act contained several provisions reducing the cost to a Hawaiian lessee of farming the land. The Act allowed the Commission to use its funds (derived from the leasing of other government lands and water licenses) to employ agricultural experts "to instruct and advise the lessee of any tract ... as to the best methods of diversified farming and stock raising." The Act also authorized the Hawaiian Homes Commission "to undertake and carry on general water and other development projects in respect to Hawaiian home lands." Finally, the HHC Act also authorized the use of eminent domain to acquire "surplus" private water supplies. The effect of these three provisions was to reduce the cost to a Native Hawaiian lessee of profitably "working" his tract. By subsidizing the cost of complementary inputs, the HHC Act was likely to have the effect of increasing unobservable work effort by the Hawaiian owner.

D. ETHNIC EXTERNALITIES

In the rehabilitation section above, we argued that the HHC Act was structured to achieve rehabilitation of the Hawaiian race and to prevent its extermination. Another more narrow argument for restricting alienation is that Hawaiians should retain their lands in order to conserve and promote their land-based culture. This argument focuses on the benefits to Hawaiians from geographic agglomeration in a traditional rural setting. A Hawaiian who chooses to join other Hawaiians in a rural community and participates in communal activities derives personal benefits from associating with other Hawaiians. More importantly, he also confers positive benefits on other Hawaiians by broadening the scale and scope of Hawaiian cultural, social, and economic
activities. Some legislative statements indicate that ethnic externalities were considered in the formulation of the HHC Act. The following excerpt from the 1919 Senate Concurrent Resolution No. 2 emphasizes the interactions between Hawaiians as a means of rehabilitating the race.

WHEREAS ... suitable areas could readily be set aside permanently as government lands subject to long term leases and renewals of leases for the encouragement of associations or colonies of individuals of Hawaiian blood for mutual growth and help to bring about a rehabilitation of their race....that from time to time there may be set aside suitable portions of the public lands of the Territory of Hawaii by allotments to or for associations, settlements or individuals of Hawaiian blood in whole or in part, the fee simple title of such lands to remain in the government ...

The positive externality flowing from the formation of a homogeneous community would, however, not necessarily be considered by an individual when he chooses whether to join the community or whether to sell land in the community. Restricting the alienation of rural land may help to control such “ethnic externalities.” If a Hawaiian homesteader can transfer his land only to another Hawaiian, then the positive externality conveyed to other residents by Hawaiian ownership of the land parcel and by the Hawaiian owner’s participation in the Hawaiian community is retained. McC Chesney (p. 314) presents the argument as follows.

The Indian way of life may a valuable capital asset imperiled by alienability ... If Indian ethnicity is such an asset, each Indian transfer to a non-Indian would be an externality against others in the same ethnic group. A priori, the individual Indian owner of land may be in a Prisoner’s Dilemma, the dominant strategy being to sell, even though all would be better off agreeing not to sell in order to preserve an Indian way of life.

McC Chesney analyzed alienation restrictions imposed on allotments of land to Native Americans under the Dawes Act of 1887. Under the Dawes Act, Indian families were allotted 160-acre homesteads which could not be sold or subleased for 25 years, even to other Indians. McC Chesney (1990, pp. 312-317) considers and rejects the proposition that control of ethnic externalities warranted the Dawes Act’s restrictions on alienation restrictions. He argues that
(1) Indians did not have a chance to directly vote on the alienation restrictions and (2) no transfers or leases to other Indians were allowed. Transfers or leases to other Indians would not reduce the number of Indians in the community or dilute the community with members of other ethnic groups. The restriction on transfers and leases does not, however, refute the ethnic externality argument, but instead points to the presence of other factors inducing the restrictions on alienation. McClesney's direct voting argument is even more problematic. U.S. citizens never directly vote on federal or state legislation or on amendments to the federal constitution. Moreover, groups who are adversely affected by federal and state legislation have no veto or special vote on the legislation. That a particular group (Indians) affected by legislation (the Dawes Act) was not granted a direct vote on the legislation is neither surprising nor a refutation of the ethnic externality argument.

In Hawaii, voters (most of whom were Hawaiians or Caucasians) had an indirect opportunity to express their opinion of the federal HHC bill (not yet enacted) during the 1920 election campaign. Delegate Kuhio was the bill's sponsor in Congress, and his defeat would send a clear message concerning voter support for the HHC legislation. Kuhio's democratic opponent in the 1920 election, Link McCandless, voiced strong opposition to the proposed HHC legislation (HR 13500), claiming that successful farming of the home lands was virtually impossible. On August 24, 1920, McCandless stated that "I am opposed to the rehabilitation scheme and I shall base most of my coming campaign for Democratic nominee for Delegate on absolute and unalterable opposition to this measure." While Kuhio's majority on election day was relatively narrow in areas that had been opened to homesteading prior to 1920, he was reelected easily, winning 61 percent of the total vote. This compares favorably to his 54.9% majority in 1918
and 57.7% majority in 1916.

Were the HHC Act’s restrictions on property rights intended to control ethnic externalities? The Senate Resolution clearly affirms this intent. The 50 percent blood quantum requirement for homesteading and for inheritance of the homestead provide support for the ethnic externalities argument. Two additional restrictions consistent with this rationale are that (1) the Act allowed the transfer of land to other Hawaiians but not to members of other ethnic groups and (2) prohibited subleasing homestead structures, which prevented non-Hawaiian workers from living in the Hawaiian farm communities. These restrictions may have been intended to control ethnic externalities in enclaves reserved exclusively for Hawaiians. The indirect vote on the proposed HHC legislation in the 1920 election also provides weak evidence in favor of the ethnic externality argument.

Some arguments supporting the rehabilitation rationale also offer support to the ethnic externality rationale. However, many arguments supporting the rehabilitation rationale are not required by the ethnic externality rationale and can only be explained by the rehabilitation argument. We conclude that the evidence supporting the argument that the HHC Act was structured to facilitate rehabilitation is compelling, but that there is also substantial evidence that the HHC Act was structured to control ethnic externalities.

E. RENT DISSIPATION

The HHC Act may also have been structured to preserve government revenues and to prevent rent dissipation. In 1919 Hawaii’s homestead law (as amended by Congress in 1910) allowed individuals to petition the territorial government to open specified available or leased government agricultural lands for homesteading. Prior to 1910, sugar companies often hired
agents who would gain access to homestead lands and after meeting statutory requirements for obtaining title, transfer title to the sugar company. The effect of such costly activity was to transfer government agricultural lands to the sugar companies; the government received no compensation for this indirect transfer. The 1910 amendments to the Organic Act prohibited homesteaders from selling their land to sugar companies and used a lottery to choose between applicants for homestead lands. Under this system, sugar companies would have to contract with numerous fragmented landowners. Since sugar companies had previously had the option to sell corporate lands to their workers and did not exercise this option, we conclude that homesteading and the consequent fragmentation of landholdings would have led to higher costs of producing sugar cane.

By supporting the amendment of the Organic Act to restrict the opening of territorial sugar cane land to homesteading, the territorial government was acting to preserve the revenues derived from lease rents on cane lands as well as to prevent the dissipation of cane land rents in meeting statutory requirements for homesteading. By restricting homesteading to less valuable tracts, the HHC Act reduced the rent dissipation from homesteading. Of course, the government’s objective was to preserve its revenue base. The HHC Act represents a case in which the government’s pursuit of economic rents fortuitously led to an improvement in economic welfare (Roumasset and La Croix, 1988).

VII. CONCLUSION

Our analysis of the Hawaiian Homes program displays some similarities to and some differences from studies of mainland land allocation programs. Alston, Spiller, McChesney, Libecap, Johnson, Carlson, and other authors have observed that the structure and enforcement
of property rights on Native American lands is a function of the power of external groups who have interests in using the land or in how it is used. We found that this argument was particularly important in Hawaii, as sugar companies clearly influenced the timing and provisions of the HHC Act. In addition, we join Alston and Spiller in finding that the composition of important legislative committees was important for passage of the Act. Hawaii had no direct representation in the U.S. Congress and the impact of the legislation on other states was an important factor in determining whether the bill would be heard by House and Senate legislative committees and reported to the floor.

More fundamentally, we find that the primary goal of the HHC Act was to facilitate the "rehabilitation of the Hawaiian race" by encouraging hard work on owner-operated farms. Rehabilitation is not a technical economic or political concept, yet economists regularly analyze the design and impact of programs intended to improve the welfare of particular groups who fare poorly in the overall society. The concept involves outside parties taking actions to facilitate restoration of individual and group human capital. The HHC Act recognized both individual and group aspects to rehabilitation. In this case the HHC program used both the carrot and the stick to induce Hawaiians to return to productive work in an agrarian environment. If Hawaiians did not work hard, they would be penalized by losing access to the land. The HHC Act also provided for subsidies from general revenues to lower the cost of or increase the gains to individual labor. Government provision of funds for rehabilitation has a public good dimension, as the program's overall goal was to reduce the death rate of Hawaiians and prevent the extermination of the Hawaiian race. This is clearly a nonrivalrous good which can be consumed by all members of the public.
Following McChesney, we find that a secondary goal of the HHC Act was to internalize ethnic externalities—to preserve the Hawaiian way of life—by supporting farm communities reserved exclusively for Hawaiians. We applied McChesney's two tests for the presence of ethnic externalities and found weak support for the hypothesis. The ethnic externality hypothesis is, however, difficult to disentangle from the rehabilitation hypothesis, and we find more provisions of the HHC Act that can be explained by the rehabilitation argument than by the ethnic externality argument.

Our case study of the HHC Act represents an interesting case in which restrictions on alienation and use were driven both by interest group interaction (Epstein, 1985) and by efficiency rationales (Rose-Ackerman 1985; Rose, 1986). The notion that institutional change is driven either by rent-seeking interest groups or by the forces of efficiency is misguided (Roumasset and La Croix, 1988). Institutional change is driven by wealth-maximizing interest groups who have incentives to consider economic efficiency. Barzel (1989) and Becker (1984) have observed that wealth-maximizing interest groups which minimize deadweight losses stemming from wealth transfers have more wealth to redistribute. The search to satisfy political as well as economic constraints could lead to an equilibrium solution that is close to the conventional welfare-maximizing equilibrium or that involves significant distortions. Ultimately, the problem is not to separate alienation restrictions into efficient restrictions and inefficient restrictions, but to understand the nature of the processes generating both solutions.
REFERENCES


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<td>Assessed Value of Real Property</td>
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<tr>
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</tr>
<tr>
<td>1893</td>
<td>$898,256</td>
</tr>
<tr>
<td>1893</td>
<td>$67,326</td>
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Source: The 1898 land acreage data are U.S. Congress (1902), pp. 177-179; the 1899 land ownership and tax payment data are from U.S. Congress, (1895), pp. 1070-1072; the 1919 data on the assessed value of real property are from Department of the Interior (1919).
### TABLE 2
HAWAII'S POPULATION BY ETHNICITY IN 1853, 1900, 1920

<table>
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<th>Ethnic Group</th>
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</tr>
<tr>
<td>Caucasian</td>
<td>1,600</td>
<td>10,547</td>
<td>27,740</td>
</tr>
<tr>
<td>Japanese</td>
<td>0</td>
<td>61,111</td>
<td>109,274</td>
</tr>
<tr>
<td>Chinese</td>
<td>364</td>
<td>25,767</td>
<td>23,507</td>
</tr>
<tr>
<td>Portuguese</td>
<td>87</td>
<td>18,272</td>
<td>27,002</td>
</tr>
<tr>
<td>Filipino</td>
<td>0</td>
<td>0</td>
<td>21,031</td>
</tr>
<tr>
<td>Other</td>
<td>67</td>
<td>648</td>
<td>5,608</td>
</tr>
<tr>
<td>Total Population</td>
<td>73,137</td>
<td>154,001</td>
<td>255,912</td>
</tr>
</tbody>
</table>

*Source: Nordyke (1977).*
<table>
<thead>
<tr>
<th>Occupation</th>
<th>Employment</th>
<th>Percentage of Total Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Laborers</td>
<td>784</td>
<td>7.29</td>
</tr>
<tr>
<td>Farmers, planters, overseers</td>
<td>1,573</td>
<td>14.62</td>
</tr>
<tr>
<td>Other Agricultural</td>
<td>340</td>
<td>3.16</td>
</tr>
<tr>
<td>Teachers</td>
<td>132</td>
<td>1.23</td>
</tr>
<tr>
<td>Government Officials</td>
<td>78</td>
<td>.73</td>
</tr>
<tr>
<td>Lawyers</td>
<td>85</td>
<td>.79</td>
</tr>
<tr>
<td>Other Professional Service</td>
<td>141</td>
<td>1.31</td>
</tr>
<tr>
<td>Laborers</td>
<td>3,574</td>
<td>33.22</td>
</tr>
<tr>
<td>Servants</td>
<td>148</td>
<td>1.38</td>
</tr>
<tr>
<td>Watchmen, Policemen &amp; Firemen</td>
<td>268</td>
<td>2.49</td>
</tr>
<tr>
<td>Other Domestic &amp; Personal Service</td>
<td>283</td>
<td>2.63</td>
</tr>
<tr>
<td>Boatmen, Sailors</td>
<td>244</td>
<td>2.27</td>
</tr>
<tr>
<td>Clerks &amp; Copyists</td>
<td>290</td>
<td>2.70</td>
</tr>
<tr>
<td>Draymen, Teamsters</td>
<td>398</td>
<td>3.70</td>
</tr>
<tr>
<td>Other Trade &amp; Transportation</td>
<td>390</td>
<td>3.63</td>
</tr>
<tr>
<td>Fishermen</td>
<td>582</td>
<td>5.41</td>
</tr>
<tr>
<td>Carpenters &amp; Joiners</td>
<td>433</td>
<td>4.02</td>
</tr>
<tr>
<td>Painters</td>
<td>172</td>
<td>1.60</td>
</tr>
<tr>
<td>Machinists</td>
<td>21</td>
<td>.20</td>
</tr>
<tr>
<td>Other Manufacturing</td>
<td>832</td>
<td>7.73</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>10,758</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Source: U.S. Bureau of Census (1900).
<table>
<thead>
<tr>
<th>Occupation</th>
<th>Employment</th>
<th>Percentage of Total Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Laborers</td>
<td>1,843</td>
<td>15.23</td>
</tr>
<tr>
<td>Farmers, planters, overseers</td>
<td>360</td>
<td>2.97</td>
</tr>
<tr>
<td>Other Agricultural</td>
<td>615</td>
<td>5.08</td>
</tr>
<tr>
<td>Teachers</td>
<td>431</td>
<td>3.56</td>
</tr>
<tr>
<td>Government Officials</td>
<td>179</td>
<td>1.48</td>
</tr>
<tr>
<td>Lawyers</td>
<td>46</td>
<td>.38</td>
</tr>
<tr>
<td>Other Professional Service</td>
<td>682</td>
<td>5.64</td>
</tr>
<tr>
<td>Laborers</td>
<td>18</td>
<td>.15</td>
</tr>
<tr>
<td>Servants</td>
<td>204</td>
<td>1.69</td>
</tr>
<tr>
<td>Watchmen, Policemen &amp; Firemen</td>
<td>299</td>
<td>2.47</td>
</tr>
<tr>
<td>Other domestic &amp; personal Service</td>
<td>344</td>
<td>2.84</td>
</tr>
<tr>
<td>Boatmen, Sailors</td>
<td>236</td>
<td>1.95</td>
</tr>
<tr>
<td>Clerks &amp; Copyists</td>
<td>630</td>
<td>5.21</td>
</tr>
<tr>
<td>Draymen, Teamsters, longshoremen</td>
<td>885</td>
<td>7.31</td>
</tr>
<tr>
<td>Laborers</td>
<td>1,178</td>
<td>9.73</td>
</tr>
<tr>
<td>Other Trade &amp; Transportation</td>
<td>1,236</td>
<td>10.21</td>
</tr>
<tr>
<td>Fishermen</td>
<td>333</td>
<td>2.75</td>
</tr>
<tr>
<td>Carpenters &amp; Joiners</td>
<td>337</td>
<td>2.78</td>
</tr>
<tr>
<td>Painters</td>
<td>160</td>
<td>1.32</td>
</tr>
<tr>
<td>Machinists</td>
<td>183</td>
<td>1.51</td>
</tr>
<tr>
<td>Engineers, Cranemen, Hoistmen</td>
<td>203</td>
<td>1.68</td>
</tr>
<tr>
<td>Laborers</td>
<td>641</td>
<td>5.30</td>
</tr>
<tr>
<td>Other Manufacturing</td>
<td>1,066</td>
<td>8.81</td>
</tr>
<tr>
<td>MINING</td>
<td>23</td>
<td>.02</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12,102</td>
<td>100</td>
</tr>
</tbody>
</table>

**Source:** U.S. Bureau of Census (1920).
TABLE 5
MEMBERS OF THE SENATE COMMITTEE ON TERRITORIES:
66TH AND 67TH CONGRESS

<table>
<thead>
<tr>
<th>66th Congress</th>
<th>67th Congress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harry New (R-Indiana), Chair</td>
<td>Key Pittman (D-Nevada)</td>
</tr>
<tr>
<td>George P. McLean (R-Connecticut)</td>
<td>Robert L. Owen (D-Oklahoma)</td>
</tr>
<tr>
<td>Wesley L. Jones (R-Washington)</td>
<td>James D. Phelan (D-California)</td>
</tr>
<tr>
<td>Warren G. Harding (R-Ohio)</td>
<td>James F. Nugent (D-Idaho)</td>
</tr>
<tr>
<td>Frederick Hale (R-Maine)</td>
<td>George E. Chamberlain (D-Oregon)</td>
</tr>
<tr>
<td>William E. Borah (R-Idaho)</td>
<td></td>
</tr>
<tr>
<td>Reed Smoot (R-Utah)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>67th Congress</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Harry New (R-Indiana), Chair</td>
<td>Key Pittman (D-Nevada)</td>
</tr>
<tr>
<td>George P. McLean (R-Connecticut)</td>
<td>Robert L. Owen (D-Oklahoma)</td>
</tr>
<tr>
<td>Albert B. Cummins (R-Iowa)</td>
<td>Joseph T. Robinson (D-Arkansas)</td>
</tr>
<tr>
<td>Philander C. Knox (R-Pennsylvania)</td>
<td>William J. Harris (D-Georgia)</td>
</tr>
<tr>
<td>Hiram W Johnson (R-California)</td>
<td>Edwin S. Broussard (D-Louisiana)</td>
</tr>
<tr>
<td>Medill McCormick (R-Illinois)</td>
<td></td>
</tr>
<tr>
<td>Frank B. Willis (R-Ohio)</td>
<td></td>
</tr>
<tr>
<td>Erwin F. Ladd (R-North Dakota)</td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Congress, Joint Committee on Printing (1920, 1921).
### TABLE 6

**STATES WITH MAJOR SUGAR CANE AND SUGAR BEET INDUSTRIES**

<table>
<thead>
<tr>
<th>State</th>
<th>Sugar Cane Production in 1919 (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Carolina</td>
<td>34,947</td>
</tr>
<tr>
<td>Georgia</td>
<td>365,603</td>
</tr>
<tr>
<td>Florida</td>
<td>179,573</td>
</tr>
<tr>
<td>Alabama</td>
<td>208,342</td>
</tr>
<tr>
<td>Mississippi</td>
<td>186,283</td>
</tr>
<tr>
<td>Louisiana</td>
<td>2,435,683</td>
</tr>
<tr>
<td>Texas</td>
<td>130,943</td>
</tr>
<tr>
<td>All other states</td>
<td>9,755</td>
</tr>
<tr>
<td><strong>Territory of Hawaii</strong></td>
<td><strong>4,744,070</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8,295,199</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>Beet Sugar Production in 1919 (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td>365,415</td>
</tr>
<tr>
<td>Michigan</td>
<td>1,625,550</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>136,208</td>
</tr>
<tr>
<td>Iowa</td>
<td>52,338</td>
</tr>
<tr>
<td>Nebraska</td>
<td>554,646</td>
</tr>
<tr>
<td>Montana</td>
<td>73,824</td>
</tr>
<tr>
<td>Idaho</td>
<td>260,309</td>
</tr>
<tr>
<td>Wyoming</td>
<td>96,994</td>
</tr>
<tr>
<td>Colorado</td>
<td>1,658,167</td>
</tr>
<tr>
<td>Utah</td>
<td>936,427</td>
</tr>
<tr>
<td>Washington</td>
<td>46,386</td>
</tr>
<tr>
<td>California</td>
<td>666,866</td>
</tr>
<tr>
<td>All other states</td>
<td>126,279</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,599,409</strong></td>
</tr>
</tbody>
</table>

**Source:** Census data as reported in *Labor Problems in Hawaii*, p. 793. The datum for Hawaii is for October 1, 1918 to September 30, 1919 and is taken from Hawaiian Sugar Planters Association (1992).
TABLE 7

BIRTH AND DEATH RATES BY NATIONALITY IN 1919

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Birth Rate</th>
<th>Death Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>12.90</td>
<td>6.26</td>
</tr>
<tr>
<td>Chinese</td>
<td>31.45</td>
<td>14.12</td>
</tr>
<tr>
<td>Filipino</td>
<td>21.36</td>
<td>18.55</td>
</tr>
<tr>
<td>Hawaiian</td>
<td>29.16</td>
<td>39.42</td>
</tr>
<tr>
<td>Japanese</td>
<td>39.92</td>
<td>13.35</td>
</tr>
<tr>
<td>Korean</td>
<td>34.41</td>
<td>14.31</td>
</tr>
<tr>
<td>Asiatic-Hawaiian</td>
<td>67.46</td>
<td>14.58</td>
</tr>
<tr>
<td>Caucasian-Hawaiian</td>
<td>56.04</td>
<td>16.17</td>
</tr>
<tr>
<td>Portuguese</td>
<td>38.00</td>
<td>12.48</td>
</tr>
<tr>
<td>Porto Rican</td>
<td>46.11</td>
<td>13.70</td>
</tr>
<tr>
<td>Spanish</td>
<td>52.50</td>
<td>9.58</td>
</tr>
<tr>
<td>Others</td>
<td>36.83</td>
<td>35.41</td>
</tr>
<tr>
<td>Total</td>
<td>34.76</td>
<td>15.36</td>
</tr>
</tbody>
</table>


Notes: Caucasian includes American, British, German, and Russian data. The death rate for the “others” categories is relatively high, but involves a very small number of deaths (25). By comparison, 891 Hawaiian deaths produced the 39.42 birth rate.
ENDNOTES

1. The HHC Act contains no stated "purpose." Frequent references were made by the Act's Caucasian and Hawaiian proponents to the "rehabilitation of the Hawaiian race."

2. The King granted some land to Americans who had served in his cabinet or as important advisors.

3. Between 1848 and 1893, the government sold 667,317 acres of land to private parties. See "Mr. Alexander to Mr. Damon" in U.S. Congress (1895), p. 1105-1107. Foreigners were awarded at least 353,724 acres.

4. See Theo C. Porter to Mr. Blount, May 11, 1893, and accompanying statistics in U.S. Congress (1895), pp. 1070-1072. These statistics are somewhat suspect. Government lands, crown lands, Bishop Estate lands, and lands on which taxes were paid amount to 3,584,202 acres whereas total land acreage in Hawaii is 4,112,128 acres. Some of the "missing" 527,926 privately owned acres could be owned by Hawaiians engaged in traditional production. Even if we assign all "missing" acres to Hawaiian private ownership, in 1893 foreigners owned at least 1,065,016 acres of Hawaii's 1,961,946 privately owned acres (excluding Bishop Estate lands).

5. Economists (Libecap & Johnson, 1979; Carlson, 1981; Anderson & Lueck, 1992) have analyzed how restricted land rights affected land use by Indians and have generally concluded that restricted land rights produced inefficient land use. For example, Anderson and Lueck (p. 448) found that "the per acre value of agricultural output is 85-90 percent lower on tribal-trust land than on fee-simple land and 30-40 percent lower on individual-trust land than on fee-simple land."

6. Indians were not allowed to sell or encumber their allotted lands for twenty-five years, and tribes were required to escrow the proceeds of land sales with the federal government.

7. McChesney considers whether the restrictions on Indian land alienability were imposed to facilitate the preservation of Indian culture; if a critical mass of Indians in a given geographic area increases the likelihood that the Indians' culture will be maintained, then land alienation restrictions may serve to internalize positive externalities stemming from geographic concentration.

8. There are two estimates of the division of acreage in the Great Mahele. J.F. Brown, Agent of Public Lands, provided one set of statistics in U.S. Congress (1902, pp. 177-179). W.D. Alexander, the Surveyor-General, provided a second set of statistics in a June 24, 1893 report to the Minister of Finance. See "Mr. Alexander to Mr. Damon" in U.S. Congress (1895), p. 1105. Alexander and Brown specified the same acreage for government lands (as in 1848) and awards to the common people. Alexander estimated crown acreage to be 915,000 acres in 1893, but some crown lands had been sold between 1848 and 1864. Thus, we use Brown's estimate of 984,000 acres of crown lands in 1848. An additional difference arises in the lands awarded to the chiefs; Alexander's estimate of land acreage awarded to chiefs is 1,571,342 while Brown's
estimate is 1,619,000. Differences in estimates stem not just from the estimates of crown land acreage, but also from differences in Hawaii's total acreage. Alexander specified 4,010,000 total acres of land in Hawaii, while Brown specified 4,126,000 total acres. Since total land acreage in Hawaii (4,112,128) is closer to Brown's estimate, we use his estimates of the approximate division of lands resulting from the Great Mahele.

9. See "Mr. Alexander to Mr. Damon" and accompanying statistics in U.S. Congress (1895), pp. 1105-1106.

10. The treaty ran for seven years and was renewed in 1887 with new provisions allowing the U.S. to establish a naval coaling and repair station at Pearl Harbor. Benefits to sugar producers were eliminated between 1890 and 1894 when the McKinley tariff, which eliminated U.S. duties on raw sugar imports, was in effect.


12. Revenues from the lease and sale of estate land financed education for Hawaiian and part-Hawaiian children at the estate's private schools, the Kamehameha Schools. The Bishop Estate consistently leased and sold land prior to 1957 when it was warned by the IRS that frequent land sales would jeopardize its status as a charitable dynastic estate. See La Croix, Mak, and Rose (1993).

13. See the discussion of the ownership of private land in note 4.

14. Some reports cite data on ethnic land ownership from Newell (1919), p. 11. Newell provides no source for his ownership data and does not appear to have conducted a study of ownership. We have concluded that his data are unreliable.

15. Department of Interior (1920), p. 22. The Bishop Estate was a charitable estate and did not pay state taxes.

16. Department of Interior (1920), p. 22. We include the value of assessed land owned by corporations and firms ($88,999,410) in the American/European total, as Hawaiians possessed no significant holdings in Hawaii's major corporations. If we exclude corporate lands from the calculations, then 26.81 percent of assessed land value is held by part- and full-Hawaiians.

17. Data on the land acreage owned by ethnic groups are available only for a few years, while data on the value of land acreage owned by ethnic groups are available in the Annual Reports submitted to the Interior Department by the Territorial Governor.


20. "An Act to Facilitate the Acquiring and Settlement of Homesteads," Session Laws 1884, c. 45. Lands were opened for homesteading in September, 1887. Between passage of the Act in
August, 1884 and the beginning of homesteading in September, 1887, the government leased desirable agricultural lands for 5-10 year terms to prevent homesteading of these lands. See J.F. Brown, Report of the Ministry of Interior, 1886, appendix F, p. 1vi.

21. Another 147 lots were paid up and not patented. Of the 678 lots laid out, 11 were on Oahu, 96 on Maui, 19 on Molokai, and 552 on the island of Hawaii.


26. Ibid., sec. 73.

27. Ibid., sec. 73 and sec. 55.

28. As Amended by an Act approved May 27, 1910.


33. Bureau of Public Instruction (1891), p. 26. The Census Report also observes that "[t]here is quite a common impression abroad in the community that the Chinese have superseded the Natives in this business to a much greater extent than these figures would indicate. It is quite possible that some of the Natives returned as fisherman may be working for Chinese bosses."


38. The following section draws extensively from McGregor's (1990) excellent article and Vause's (1962) superb thesis detailing the history of the HHC Act.


41. The May 27, 1910 amendments to Section 73 of the Organic Act provided that most land leases contain a provision that the Territorial Government could withdraw the land from the lease "for homestead or public purposes".

42. 40 U.S. Statutes at Large 1804.

43. See U.S. Congress (1920).


45. In 1921, Republicans had a 14-1 majority in the Territorial Senate and a 26-4 majority in the Territorial House.


47. Hawaiian Homes Commission Act, Title 3, Sec. 304 (d).

48. Honolulu Star Bulletin, April 5, 1921 as quoted in Vause, p. 84.

49. U.S. Army Corp. of Engineers contracts are stored at the National Archives--Pacific Sierra Region in San Bruno, California. Contracts are contained in RG 77, U.S. Army Corp. of Engineers, Honolulu District, General Administrative Files, Boxes 1, 4, and 17.

50. See Dept. of Interior (1920-1930).


52. Legislators and citizens frequently argued that part-Hawaiians were achieving greater prosperity than full-Hawaiians and therefore did not require additional help. Congress has, however, rarely hesitated to redistribute wealth to higher income groups when such action contributed to the majority's re-election prospects.

53. Hawaiian Homes Commission Act, Title 3, Sec. 304 (d).

54. Title 3, Sec. 304 (d).

55. World War I inflation had eroded the value of the legislators' compensation.

56. Other Asian immigrants also suffered losses.

57. The cane sugar was converted to raw sugar in Hawaii at mills located on the plantations.
58. One could, of course, also hypothesize that restrictions on Japanese homesteading in Hawaii would bring Japanese immigrants from Hawaii to California, a factor which should have prompted him to oppose the bill.

59. The Republicans increased their majority in the House from 237-191-7 in the 66th Congress to 300-132-1 in the 67th Congress.


62. In 1910, the U.S. Court of Claims ruled that the crown lands adhered to the institution of the monarchy rather than the monarch. When the monarchy ceased to exist, the lands reverted to the control of the sovereign. See 45 Ct. Cls. 418. The Organic Act (Sec. 99) also declared the crown lands to be the property of the Hawaiian government and to be free from any claims.


64. Investments in specific assets (such as mills) by sugar companies also would increase the demand by sugar companies to own rather than lease land.

65. Similar arguments made in regard to Native Americans and their loss of land provided the rationale for federal legislation restricting alienation of Indian lands. McChesney (1990, pp. 314-317) considered whether these restrictions achieved ends beneficial to the Indians. He argued that well-specified private property rights induce voluntary transfers which tend to yield gains to sellers as well as buyers. He observed that many tribes were hard bargainers and obtained good prices for their lands. McChesney argued that these sales to Caucasians benefited the Indians. Such voluntary transactions should not be confused with the many coerced transfers following the Supreme Court's Lone Wolf decision in 1903, where Congress enabled non-Indians to purchase tribal lands at a statutorily determined price well below the market price. Lone Wolf v. Hitchcock, 187 U.S. 553 (1903).

66. The birth rates of Caucasian-Hawaiians and Asiatic-Hawaiians are, however, well above average.


69. Sec. 208 (5).

70. This assumes that Hawaiians moving from urban to rural areas would, in fact, have a longer life expectancy.

71. Sec. 208 (5).
72. Sec. 208 (5).

73. Sec. 208 (5). No Hawaiian was, however, allowed to have more than one homestead farm.

74. See, for example, U.S. Department of the Interior (1928), p. 8.

75. Sec. 208 (3).

76. See, for example, U.S. Department of the Interior (1928), p. 8.

77. Sec. 219, 220, and 221.

78. Sec. 219.

79. Sec. 220.

80. Sec. 221.

81. See Arnott and Stiglitz (1986) for a full discussion of the use of taxes and subsidies to reduce moral hazard in a wide variety of activities, including farming.

82. See La Croix (1989) and Greif (1993) for discussions of cooperative activities within homogeneous groups.

83. McChesney (1990) observes that Indians may not have been used to private ownership or may have preferred communal ownership.


85. The McCandless campaign was hampered by a federal government indictment charging McCandless with selling rice above the price ceiling imposed by the U.S. government during World War I.

86. See Barzel (1989) for a full discussion of institutional arrangements to prevent rent dissipation.