THE HAWAIIAN HOME LANDS PROGRAM:
PAST FAILURES AND FUTURE PROSPECTS

by

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ABSTRACT

The Hawaiian Home Lands program enacted by the U. S. Congress in 1921 placed 200,000 acres of government land in trust for the use of native Hawaiians. This program - now with assets valued at well over $700 million - long ago evolved into a special type of public housing program in which the Hawaii territorial and then state governments developed, assigned and controlled the use of residential land.

This article investigates the extent to which reform of the program could increase the value of benefits delivered to native Hawaiians. It builds on the economic literature on land and housing policy reform and Native American property rights.

The reform alternatives that we analyze all employ the same total amount of program resources. The first alternative is lump-sum grants that provide fee title to existing homeowners, and money from the sale of other program assets to other native Hawaiians. Additional alternatives provide financial assistance for the rental and purchase of housing.

The existing program and the proposed alternatives yield both private and public benefits. The public benefits are the inalienability of land which yields cultural and political externalities, and the more equitable distribution of program resources.

Our quantitative estimates of private benefits reveal the extent of potential inefficiency in each program. We also determine the minimum value of the existing program's public benefits that would make it more beneficial to native Hawaiians than a lump-sum grant program.
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For over 75 years the Hawaiian Home Lands (HHL) program has been the cornerstone of federal and state government policy towards native Hawaiians. The federal government initiated the program following a 150-year decline in the Hawaiian population, the annexation of Hawaii by the United States in 1898, and a significant deterioration in Hawaiians' economic status. Demographic and economic decline were coupled with major losses in Hawaiian landholdings. As the growing sugar economy of late nineteenth-century Hawaii pushed Hawaiians into urban areas, many lost, sold, or abandoned their largely rural landholdings. The ostensible goal of the HHL program was to break this downward spiral of the Hawaiian people by returning Hawaiians to rural areas to farm the land. To this end the HHL program placed territorial government lands in trust for Hawaiians and leased a portion of those lands to native Hawaiians for use as small farms and residential lots. Since the 1930s the program has been predominantly a public housing program, with government involved in the development, assignment, and control of residential lots.

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3 In this article a “native Hawaiian” is a person with 50 percent or more Hawaiian blood, while a “Hawaiian” is a person with any Hawaiian blood.
Despite the HHL program’s “rehabilitation” goal, it has benefited relatively few native Hawaiians. Some HHL critics have called for increased funding and better administration of the existing program. The rise of the Hawaiian sovereignty movement has prompted interest in proposals calling for more fundamental reform, as a new sovereign entity may eventually control the HHL resources and have the power to alter both HHL funding and policy. Our article contributes to this ongoing discussion of HHL policy by investigating whether fundamental reform of the HHL program could increase the value of HHL benefits delivered to current and future generations of native Hawaiians.

Our study builds on the large body of economic literature on land and housing policy reform and Native American property rights. Several studies of Native American reservations show how trust restrictions on Native American land rights have produced inefficient land use. This literature illustrates the advantages associated with more complete private property rights in lands held in trust for Native Americans. Numerous studies of housing policy in the United States and Europe document how government programs providing subsidized public housing and housing assistance are inefficient. This literature illustrates the advantages of reassigning responsibility for the use of government housing subsidies to private citizens.

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In this article we specify three basic alternative programs (and several variants) with potential advantages over the existing HHL public housing program and analyze their benefits to native Hawaiians. Each program employs the same amount of resources. Our benchmark lump-sum grant program provides fee title to existing homesteaders, sells other HHL resources, and distributes the proceeds as lump-sum money grants to homestead applicants. Two other programs provide housing assistance to native Hawaiian consumers in the form of vouchers for rental units and vouchers for purchase assistance to first-time buyers.

The existing HHL program and our proposed alternatives yield both private and public benefits. The private benefits, e.g. housing or lump-sum grants, accrue exclusively to the individual recipients of HHL subsidies, while the public benefits, e.g. non alienation of land to foreigners or a fair distribution of HHL resources to native Hawaiians, accrue to other native Hawaiians and Hawaiians as well. Our analysis begins by describing the private and public benefits generated by the existing public housing program and by the proposed lump-sum grant, rental voucher, and purchase voucher programs. We then measure the private benefits associated with each program and compare programs.

Our initial focus on private benefits is motivated by two considerations. First, the private benefits are easier to estimate than the public benefits. Second, economists have analyzed the private benefits of alternative housing programs on the U. S. mainland, and we can use this research to draw some tentative conclusions about the existing HHL program as well as our proposed alternatives. Our analysis of private benefits ranks the lump-sum grant program highest followed, in descending order, by purchase vouchers, rental vouchers, and, finally, the existing HHL public housing program.

Ranking programs by their private benefits does not allow us to draw policy conclusions, as each program also generates substantial public benefits. To draw policy conclusions, we need to be able to rank programs by the sum of their private and public
benefits. Since we are unable to measure all public benefits accurately, we confine ourselves to a comparison of two programs with closely related public benefits.

Section 1 briefly reviews the history of the HHL program and summarizes the market value of the program's resources. Section 2 presents a theoretical framework for evaluating private benefits of the HHL program and proposed reforms. Section 3 measures the private benefits of the existing program, while Sections 4 and 5 measure the private benefits associated with the three main alternatives to the existing program. Section 6 measures benefits associated with the restricted lump-sum grant program. Section 7 proposes changes that may be more politically palatable than our more radical reforms. Section 8 presents reform proposals developed by DHHL and the major Hawaiian sovereignty organization, Ka Lahui Hawai‘i. Section 9 compares the private benefits generated by the various programs and calculates the minimum value of the existing program's public benefits that would make the existing HHL program more beneficial to native Hawaiians than the restricted lump-sum grant program. Section 10 appraises the prospects for reform.

1. THE HAWAIIAN HOME LANDS PROGRAM

Origins of the HHL Program

Between Captain Cook's arrival in 1778 and the enactment of the Hawaiian Homes Commission Act (HHCA) in 1921, the Hawaiian population suffered a massive decline. Estimates of the population in 1778 range between 110,000 and 800,000. Yet by 1920, there were only 23,723 native Hawaiians and 18,027 additional Hawaiians. This decline, largely due to a series of epidemics, was coupled with an influx of immigrants from China,

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Japan, Korea, and the Philippines who worked on Hawaii's sugar plantations. As a percentage of the total Hawaii population, Hawaiians fell from 97.1 percent in 1853 to 16.3 percent in 1920.

At the time of Western contact in 1778, ruling chiefs held lands in trust for the use of their subjects. The chiefs (*ali`i*) made temporary land use grants to lesser chiefs. A chain of hierarchical grants eventually reached the commoners who farmed the land. Chiefs could lose or gain lands after conquest or redistribution by a ruling chief's successor, but commoners generally remained on land even after ownership changed. In 1848 a land reform law coupled with government sales of its lands provided several hundred Hawaiian chiefs with alienable title to approximately 1.9 million acres of Hawaii's 4.1 million acres. Yet by 1893 individual Hawaiians had sold, abandoned or otherwise lost all but 369,000 acres. By 1919 Hawaiians owned only 9.8 percent of the value of assessed real property.

By 1920 Hawaiians with their own farms had declined to less than 3 percent of the Hawaiian workforce. Landless Hawaiian workers in the growing urban areas faced stiff competition from Chinese and Japanese workers leaving the sugar and pineapple plantations for urban work. The 1920 U.S. Census reported that Hawaiian labor force

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8 The decline in Hawaiian land ownership includes the acreage transferred to a charitable trust (the Bishop Estate) by an *ali`i*, Princess Bernice Pauahi Bishop. Although Hawaiians are the beneficiaries of the Bishop Estate trust, we do not include Bishop Estate lands in the 369,000 acres owned by Hawaiians because Hawaiians do not directly control the trust or its lands.

9 *Id.* at 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 major corporations. If we exclude corporate lands from the calculations, then Hawaiians held 6.8 percent of assessed land value.

participation rates and secondary school enrollment lagged behind other ethnic groups. In 1920 over 36 percent of native Hawaiians and 50 percent of other Hawaiians resided in Honolulu, compared to 33 percent of the entire population. Many Hawaiians lived in crowded tenements where death rates were abnormally high. The declining circumstances of Hawaiians prompted Hawaiian political leaders to advocate a return to traditional farming in rural areas.

**The Hawaiian Homes Commission Act**

The U.S. Congress passed the Hawaiian Homes Commission Act (HHCA) in 1921. While the HHCA’s purpose was not explicitly stated in the law, its proponents argued that the HHCA was passed to facilitate the rehabilitation of the Hawaiian race. The HHCA set aside over 203,000 acres of public lands to be held in trust by the Hawaiian Homes Commission, a regulatory body comprised of the Governor of the Territory of Hawaii and his appointees. In 1959 the new State of Hawaii, through its Department of Hawaiian Home Lands (DHHL), became the executor of the trust.

The HHCA entrusted the Commission with leasing HHL lands as “homesteads” to native Hawaiian applicants for a term of 99 years for $1 per year. The homesteaders were to build homes on their land and to earn a living by farming or pasturing their acreage. Hawaiians awarded HHL leases were severely constrained in their access to capital because they could not mortgage the HHL land and could obtain only a modest

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11 *Id.* at Tables 14 and 16.


14 The term “homestead” is used differently than in other contexts. In the mainland United States, the 1862 Homestead Act allowed an individual to establish fee-simple rights in certain government lands by building a homestead on the land. By contrast, the HHL program leases “homestead” lots to native Hawaiians. Building a home on the leased land does not enable the lessee to claim the land in fee simple.
loan from the Commission. Lessees could not sublet the land or bequeath the lease to a relative with less than 50 percent Hawaiian blood.\textsuperscript{15}

The HHCA dedicated certain territorial revenues to the HHL program: 100 percent of revenues from the leasing of HHL lands not yet homesteaded; 30 percent of revenues from the leasing of the ceded territorial lands to sugar plantations; and 30 percent of the receipts from territorial water licenses.\textsuperscript{16} The HHCA and subsequent amendments placed caps on the cumulative revenues from these sources. The Commission was allowed to request the territorial legislature to issue revenue bonds for water and other development projects. Beginning in 1937, the territorial legislature was empowered to provide additional funds for operations, as well as capital improvement projects.

The Commission began operations by developing infrastructure and awarding farming and pasturing leaseholds on Molokai and the Big Island. The results from these initial ventures were disappointing for several reasons: (1) the poor quality of HHL lands; (2) the lack of a dependable water supply; (3) the long-term demise of small farming in the pineapple industry; and (4) the attractiveness of urban jobs and urban living. In the late 1920s the Commission switched its emphasis from leasing acreage for farming to leasing improved residential lots of less than one-half acre and providing loans at below-market rates to build homes on the lots. These residential lots attracted numerous applicants and afforded a feasible way to induce native Hawaiians to leave the crowded urban tenements. Thus, the primary purpose of the HHL program took shape: to plan, develop, and finance residential subdivisions for native Hawaiians.\textsuperscript{17}

\textsuperscript{15} The program now allows homesteads to pass to blood-related children who are one-quarter Hawaiian.

\textsuperscript{16} The Republic of Hawaii ceded 1.8 million acres, including the HHL acreage, to the U.S. Government in 1898.

\textsuperscript{17} The HHCA also allows DHHL to make expenditures for educational and social purposes. A small proportion of DHHL funds is currently allocated to these missions.
Government Support for Native Hawaiians

Support by the Hawaii state government for the HHL program has varied greatly over the past 74 years (Figure 1). A rough calculation of the constant-dollar territorial/state expenditures on the HHL program reveals a dramatic decline in program support. Program expenditures comprised 11-18 percent of the state budget in the 1920s. At the beginning of World War II, program expenditures dropped significantly, never again amounting to more than 6 percent of the state budget. Since 1980, program expenditures have remained below 1 percent of the state budget.18

Another measure of government support is a comparison of HHL expenditure per native Hawaiian with state government expenditure per Hawaii resident. In constant 1992 dollars, HHL expenditures per native Hawaiian decreased from approximately $276 in the 1920s to $253 in the late 1980s. Over the same period, state government expenditures per Hawaii resident increased dramatically, from $360 to $3,015.19 Thus, while state government spending directed to the general population increased by 738 percent, spending on the HHL program declined by 8 percent.

Despite the decline in funding, some performance measures suggest relative success of the HHL program since statehood. A key performance indicator is the number of leaseholds awarded to native Hawaiians. In 1959 there were just under 1,700. As of June 30, 1996 there were 6,350, although about 800 of these were leases to unimproved

18 In the 1996 fiscal year, DHHL expenditures totaled $37 million.

19 We make these calculations using rough estimates of native Hawaiian population in 1920 and 1995 and average expenditures by the Hawaii state government for 1921-29 and 1986-90. Hawaiians with a 100 percent blood quantum numbered about 24,000 in 1920, whereas Hawaiians (Hawaii residents with any Hawaiian blood) numbered about 42,000. See U.S. Dept. of Commerce, Bureau of the Census, Fourteenth Census of the United States: 1920, Bulletin, Population: Hawaii, Washington, D.C., 1920, p. 2. In the absence of additional information, we split the difference between these two counts and assume that there were 33,000 native Hawaiians (those Hawaiians with at least 50 percent blood quantum) in 1920. For 1995, we use the SMS estimate of 51,234 native Hawaiians residing in Hawaii. See SMS, Technical Report, Department of Hawaiian Home Lands, Beneficiary Needs Study, 1995, September 1995.
The average annual addition of improved leaseholds to stock since statehood has been 99, compared with only 45 prior to statehood.

Recent Policy Changes

Most critics of DHHL have argued that its performance could be improved with additional funding and more efficient program administration. A major administrative problem for DHHL after statehood was its lack of control over trust lands under general lease. Prior to 1965 the Department of Land and Natural Resources (DLNR) administered approximately 70 percent of the trust lands under general lease. Legislation passed in 1965 (Act 271) allowed DHHL to take over these general leases as they expired, and by 1995 DHHL administered almost all general leases. DLNR's management of these lands was problematic because it was willing to sacrifice revenue from lease rents to achieve other policy objectives. DHHL's clearer operational objective of maximizing net revenues from management of the general leasing program appears to be more consistent with HHCA goals.

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21 Over the last 20 years, state government support for Hawaiians has also been channeled through the Office of Hawaiian Affairs (OHA). Established by the State Constitutional Convention in 1978, OHA is the principal public agency responsible for the development, performance, and coordination of programs and activities relating to all Hawaiians, some of whom are also eligible to receive HHL homesteads. OHA receives 20 percent of the revenues from the lease or sale of ceded lands (excluding the 200,000 acres set aside for the HHL trust), and it (like DHHL) receives appropriations from the state legislature. OHA's total expenditure in fiscal year 1996 was $13.7 million, and its future expenditures are likely to be much larger. See Deloitte & Touche LLP, Office of Hawaiian Affairs, State of Hawaii, Financial Statements for the Year Ended June 30, 1996 and 1995, Supplemental Schedules for the Year Ended June 30, 1996 and Independent Auditors' Report, Honolulu, 1997. In 1993 its equity increased from $26 million to $163 million due to a settlement from the state for past revenues received by the state from the lease, sale, or other disposition of ceded lands. Id. at p. 60, 61. As of June 30, 1996, OHA equity was $160 million. Some portion of OHA expenditures since its creation has benefited native Hawaiians (as distinct from Hawaiians), and should be taken into account when assessing state support for their welfare.

22 In 1978 a state constitutional convention observed that as the sugar industry declined, DLNR could dispose of previously leased sugar lands without compensation to the HHL trust. To protect this revenue source, a constitutional amendment was enacted requiring that 30 percent of the revenue obtained from the sale, development, or other disposition of these so-called "protected lands" would be given to the HHL trust.
DHHL has used its revenues more efficiently in recent years. From the program's inception in 1921, a large portion of its revenues was used to finance lessees' purchases of improvements.23 In the mid-1980s the department pledged its general lease revenues to the purchase of foreclosed homesteads, thereby providing backup insurance for FHA- and VA-insured bank mortgages. The switch from providing its own mortgage loans to insuring loans from private lenders has enabled DHHL to leverage its funds more efficiently and improve lessees' access to mortgage loans.

Although some aspects of DHHL performance have improved, many critics of the HHL program, including some of 13,000 individuals or families wait-listed for developed homesteads, believe that it still functions abysmally.24 Many applicants believe that the long waiting period required to obtain a homestead is primarily due to mismanagement of the HHL program.

In 1991 the Hawaii State Legislature25 created the HHL Trust Individual Claims Review Panel to receive and review claims of individuals for damages arising out of a breach of the HHL trust between 1959 and 1988. In 1993 the panel began receiving claims, primarily from wait-listed applicants who charged that they had been waiting too long due to DHHL mismanagement. The panel found that waiting too long for either a developed or undeveloped homestead lot was a breach of the HHL trust. Review Panel awards were, however, not funded by the 1997 legislature.

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23 Hawaiians could not obtain mortgage loans from the private sector because they did not own the land and could not pledge it as collateral.

24 As of June 30, 1996, there were 28,641 applications for homesteads, with 15,680 of these for residential homesteads and 12,961 for pastoral or agricultural homesteads. Since applicants can submit multiple applications for residential homestead lots in different locations, the number of native Hawaiians on the waiting list for residential homesteads was 12,999 in 1995. See SMS, supra note 19. In a 1995 survey, applicants and lessees were asked to rate DHHL performance with respect to land delivery. Only 9 percent of both groups graded performance with an A, whereas 45 percent used a D or an F. Ibid., p. 56.

25 Hawaii Revised Statutes, Chapter 674.
Two new DHHL projects represent significant changes from past modes of operation. First, the Princess Kahanu Estates in Lualualei embodies new efforts by DHHL to reduce construction costs and to accommodate residents’ individual preferences. The Prince Kahanu Estates, which opened in spring 1996, is a community with 271 single-family residences. Optional upgrades were available to residents, and lessees had a choice of homes of varying sizes as well as upgraded features. The project was accompanied by pre-schools and childcare centers financed by the Bishop Estate. Second, in 1995 DHHL responded to an OHA initiative by leasing HHL lands to OHA (for 65 years at $1 per year) for its development of a rental housing project in Waimanalo. This represents DHHL’s first attempt to provide housing assistance for native Hawaiians who cannot afford to purchase homes on HHL lands.

During the 1980s DHHL began to reclaim certain trust lands that had been illegally set aside by executive orders and proclamations for purposes not benefiting the trust. In 1995 the Hawaii state legislature passed Act 14 which corrected many of these past wrongs. First, it authorized the transfer of 16,518 acres of land to DHHL. As of June 30, 1996, 7,939 of these acres had been transferred. When the remaining acres are transferred it will bring the HHL trust up to 203,500 acres, the amount specified by the original HHCA.26 Second, Act 14 called for annual payments of $30 million for 20 years from the state general fund to DHHL to compensate for past breaches of the trust. Act 14 appropriated funds for the first two years. It also authorized the transfer of 1,548 acres at Anahola-Kamalomalolo and Waimanalo to DHHL; provided for the state Department of Transportation to compensate DHHL with land for the use of HHL lands for roadways; gave first priority to DHHL to select up to 200 acres of surplus ceded land at Bellows Air Force Base; and appropriated almost $6.3 million for past and current rent on and entitlements for HHL lands.

These policy changes clearly suggest that the HHL program will deliver larger future benefits to its native Hawaiian beneficiaries. There are also several recent signs that the rate of homestead delivery is likely to increase. In the fiscal year ending June 30, 1996, DHHL completed infrastructure for 329 lots and completed 349 homes. Many new projects are currently underway. Also, in 1996, the legislature increased DHHL’s authorization to guarantee indirect mortgage loans from $21 million to $50 million. Finally, DHHL currently holds over $100 million in cash and anticipates receiving installments of $30 million per year until 2015.

Current DHHL Resources

DHHL has considerable resources at its disposal. Table 1 shows that in 1996 DHHL assets were valued at $186.2 million, liabilities at $25.8 million, and equity at $160.4 million. These summary measures do not include the capitalized value of DHHL revenue streams. DHHL revenues are expected from four main sources: lands on general lease, annual legislative appropriations for operations, state general obligation bonds for capital improvement projects (CIP), and a settlement for past breaches of the HHCA trust. To estimate the present value of these revenue streams, we assume that each revenue stream will retain its current real value in future years. This means that the State of Hawaii will receive annual revenues of $4.5 million from lands currently on general lease and from licenses and permits;27 appropriate $1.5 million annually for DHHL operations;28 provide $8 million annually for CIP expenditures;29 and honor its obligation to pay $30 million per year until 2015 as compensation for past breaches of the trust.

27 In the last four years, lease, license, and permit revenues have increased from $4.0 million to $5.8 million. While this revenue source will diminish if some lands are developed for homesteads, revenues from current leases should be included in a measure of HHL’s current resources.

28 In the past five years, legislative appropriations for DHHL operations have fallen from $3.3 million to $1.5 million. This is due to poor fiscal conditions in Hawaii as well as substitution of Act 14 appropriations for regular budgetary appropriations. The Hawaii Constitution and the HHCA both contain provisions establishing an obligation for the State of Hawaii to fund DHHL.
A rough approximation of the value of DHHL resources (excluding the 45,452 acres and infrastructure already committed to homestead projects) is obtained by summing DHHL’s equity (book value) and the capital value of expected DHHL revenues. Using a 6 percent real discount rate, the capital value of the $14 million in annual legislative appropriations is $233.3 million and the capital value of the 19 remaining compensation payments of $30 million is $334.7 million. Combined with DHHL’s $160.4 million in equity, total DHHL resources amount to $728.4 million.

2. PRIVATE AND PUBLIC BENEFITS: MEANING AND MEASUREMENT

DHHL resources can be used in several alternative ways. These include continuation of the current homestead program; modest changes in the current program; and sale of DHHL resources followed by the distribution of lump-sum grants or housing vouchers for home buyers or tenants. To compare these alternatives, we outline an analytical framework for comparing the benefits of different programs.

There are two types of benefits to native Hawaiian recipients of HHL resources: private benefits accruing directly to individual lessees and their families and public benefits accruing to all Hawaiians who collectively value the HHL program. An example of public benefits is the collective value of the land’s inalienability under the homestead program. Many Hawaiians who do not receive homesteads, money, or housing assistance from DHHL may nonetheless value the restrictions on alienability and use of HHL land.

The fundamental premise underlying our analysis is that alternative programs using the same resources should be compared by examining the sum of private and public benefits to native Hawaiians generated by each program. Ranking programs by their private benefits provides insufficient information to determine their global efficiency, as

29 Annual CIP expenditures funded by general obligation bonds averaged $8.7 million between 1993 and 1996.

30 The estimated value of DHHL resources is conservative in that it excludes certain resources not counted in DHHL’s balance sheet or income accounts. These items are enumerated in Table 1.
the same constraints that produce lower private benefits may also produce higher public benefits and increase the program's total benefits. Nonetheless, we begin our analysis by comparing the private benefits of different programs. They vary due to program-specific contemporaneous and intertemporal resource costs produced by each program's specific features.

**Contemporaneous Program-Specific Costs in the Provision of Private Benefits**

Contemporaneous costs are generated by the impact of program constraints on the current use of resources in consumption and production. Program-specific consumption costs occur in the HHL program because many native Hawaiian beneficiaries would prefer to receive the market value of a homestead rather than the homestead itself, given its predesignated location and characteristics. With liquid assets, the beneficiary has the option of either purchasing the homestead or purchasing other more highly valued goods. As a general rule the market value of a designated HHL homestead, \( R \), exceeds the value of that homestead to the beneficiary, \( B \). \( B/R \) is a measure of the program-specific consumption costs from the HHL program. Program-specific consumption costs exist if \( B/R<1 \) and reach a maximum when \( B/R=0 \).

Program-specific production costs result from the higher costs associated with government (rather than private) development and operation of housing projects. The lack of incentives within the government sector to control housing costs and to maintain quality is the single largest source of production inefficiency. The private sector's construction industry is motivated by profit and undertakes new construction only if prospective benefits, as measured by the expected price of homes in the development, exceed production costs. Like other public housing agencies, DHHL is not required to satisfy such a test. A measure of program-specific production costs is the fraction \( R/C \), where \( R \) is housing's market value and \( C \) is the cost of resources used in its production. Program-specific production costs exist if \( R/C<1 \) and reach a maximum when \( R/C=0 \).
Overall program-specific costs are the product of program-specific consumption and production costs: \( B/R \times R/C = B/C \). \( B/C \) measures benefits per dollar expended. Table 2 shows Stephen Mayo's summary of empirical estimates of program-specific consumption costs (\( B/R \)), production costs (\( R/C \)), and overall program-specific costs (\( B/C \)) in major U.S. housing programs.\(^{31}\) Table 2 categorizes programs by their provision of subsidies to consumers or producers. Among programs subsidizing consumers, the federal government's major rent supplement program, Section 8 Existing Housing, provides \$.72\ in benefits to each recipient per $1.00 of expenditure, while the experimental Housing program provides \$.82\ in benefits to each recipient per $1.00 of expenditure.

Mayo found that programs subsidizing producers tend to generate higher program-specific costs (per dollar of expenditure) than programs subsidizing consumers. The federal government's Public Housing program, which subsidizes housing construction, delivers \$.43\ in benefits to each beneficiary per $1.00 of expenditure. Mayo concluded that housing programs that provide subsidies directly to consumers generate, without exception, smaller program-specific costs than housing programs that subsidize the production of housing. As we discuss in more detail below, since the HHL program spends most of its resources subsidizing the production of housing, there is a high likelihood that it is generating relatively large program-specific costs per dollar of expenditure.

**Intertemporal Program-Specific Costs in the Provision of Private Benefits**

Producing homesteads too rapidly or too slowly can also generate *intertemporal* program-specific costs. If native Hawaiians place a high premium value on receiving HHL homesteads sooner rather than later, then delayed production of homesteads generates

\(^{31}\) See Mayo, supra note 2, p. 229. Mayo uses different terms in his discussion of the losses generated by government housing programs.
substantial intertemporal consumption losses. We can measure native Hawaiian
premiums on delivery time by comparing the real discount rate of native Hawaiians with
the real rate of return on HHL resources invested in the homestead program. If the real
rate of return were substantially lower than the real discount rate of native Hawaiians, this
would indicate that the HHL program is providing homesteads too slowly to native
Hawaiians.

A rough approximation of the real rate of return on HHL resources is the value of
annual HHL output divided by the overall value of HHL resources. Suppose HHL output
is measured by the flow of new homesteads delivered to native Hawaiians. If DHHL
continues to deliver 400 homesteads annually and each homestead is worth $46,000 to the
recipient, then a 2.5 percent annual rate of return on the value of HHL resources ($728
million) is produced.

The discount rate of native Hawaiians is the rate at which native Hawaiians
discount future benefits and costs. It reflects the difference in value between a dollar of
benefits today and a dollar of benefits one year from now. The higher the discount rate,
the greater is the premium placed on receiving benefits now rather than in the future.
Edwin Fujii and James Mak found that Hawaiians have higher discount rates than the
general population. Following their study, we assume that native Hawaiian beneficiaries
have a real discount rate of 15 percent. 33

In sum, our analysis shows that while native Hawaiian beneficiaries are willing to
pay a 15 percent premium to obtain benefits immediately, HHL resources yield a rate of

32 See Section 3 for a derivation of the value of HHL subsidies to the typical native Hawaiian
homesteader.

33 Maxwell Fry and James Mak found that Honolulu homeowners have a median real discount rate of 13
percent. See Maxwell J. Fry and James Mak, “Is Land Leasing a Solution to Unaffordable Housing?”
Economic Inquiry, Vol. 22, 1984, pp. 544-46 in particular and James Mak and Edwin T. Fujii, A Cost-
return of only 2.5 percent. This disparity indicates that HHL resources are being released too slowly to potential beneficiaries.

Reallocating more resources from future HHL activities to current HHL activities would require the State of Hawaii to borrow against future HHL revenue streams. The bulk of DHHL resources are state promises to deliver funds in the future. If the state could borrow money at a rate less than the discount rate of native Hawaiians, then intertemporal social costs would be reduced, as gains by native Hawaiians from increased housing consumption in the current period would outweigh the value of interest costs in future periods. After reviewing the range of interest rates currently paid by the State of Hawaii, we use a conservative upper-bound specification of 6 percent as the state’s real borrowing rate. Since native Hawaiians receive a return of 15 percent from state borrowing and the state’s borrowing rate is only 6 percent, there are ostensibly large gains from borrowing against future revenue streams.

The extent to which native Hawaiians would benefit from state borrowing depends on how fast DHHL could transform the additional resources into benefits for Hawaiians. If, for example, the additional resources were to be disbursed as money to wait-listed applicants, the benefits could be realized a few months after the resources were borrowed. If, however, the additional resources were to be used to build additional HHL residential infrastructure or homes, it could be many years before most wait-listed applicants would realize benefits.

34 The decision by the state to borrow may be further constrained by legal and financial constraints on borrowing. The Hawaii state constitution places a limit on the state’s indebtedness. The debt cannot exceed 18.5 percent of the prior three years’ annual average revenues. At this time, the constitutional limit on borrowing is not considered a binding constraint, so we shall not consider it further. However, increased borrowing could increase the interest rate paid by the state to borrow funds.

35 The state’s borrowing rate on its most recent issue of tax-exempt general obligation bonds was about 5.3 percent. Given Hawaii’s 2 percent inflation rate, the corresponding real rate was only 3.3 percent. If the state were to borrow larger amounts than the $200-400 million that it has borrowed annually in recent years, its real borrowing rate would probably increase.
3. BENEFITS OF HOMESTEADS ON TRUST LANDS

Private Benefits

DHHL provides three types of subsidy for each homestead. First, it leases unimproved land to the homesteader for 99 years at $1 per year. DHHL staff and property consultants estimate that the average unimproved homestead lot would have a market value of $35,000.36 Second, although DHHL is not required to develop the homestead lots, it generally assumes the role of developer. The average cost incurred by DHHL to develop a lot is $68,711.37 Third, it provides backup mortgage insurance on the homesteader's purchase of the lot's home, typically for $95,000. A half-point reduction in the interest rate attributable to the backup mortgage insurance on a 30-year loan for $95,000 has approximately a $4,000 value. Thus, the market value of a typical homestead subsidy is $107,700.

A sharp distinction must be drawn between the cost of the government's subsidy per homestead and the direct benefits to the recipient of the homestead. In U.S. public housing projects, the government's expenditure of a dollar on public housing delivers only $.43 to the beneficiary. Do the HHL program and U.S. mainland public housing projects share sufficiently similar characteristics for us to conclude that similar losses exists in the HHL program?

The extent of program-specific consumption losses in the HHL program is likely to be similar to the losses observed in mainland public housing programs. Consumers prefer money over a homestead subsidy of the same amount because with money they have flexibility. They can purchase or rent housing and/or a number of other goods. If they

36 This figure is a median of estimates provided by real property consultants and DHHL staff members.

purchase housing, it can be at any of many locations in Hawaii or elsewhere instead of at one or two government-designated locations. It can have characteristics determined by the consumer instead of by the government.

Examples of program-specific production losses abound within the HHL program, and they are probably somewhat similar to those on the U. S. mainland. The difficulty of exchanging HHL program lands for other private and public lands results in project locations determined by historical accident rather than economic considerations. This increases construction costs and places program recipients in rural areas relatively far from employment opportunities. The use of tax-free bonds to finance infrastructure wastefully biases expenditures in favor of initial capital expenditures over recurrent maintenance expenses. State regulations requiring that union wages be paid on DHHL-supported housing projects increase construction costs. Recent legislation allows for DHHL contract awards to local developers and builders with bids up to 15 percent higher than firms located in other states or countries. More important than any of the above examples is that government incentives to undertake only welfare-improving projects are weaker than those of private developers.

In the absence of a reliable study of consumption and production costs specific to the HHL program, we assume that DHHL generates about the same program-specific consumption and production losses as U.S. mainland public housing programs. In other words, it delivers $.43 of benefits per dollar of expenditure. This means that the $108,000 in government subsidies per HHL homestead lot generates $46,000 in benefits for a new homesteader.

Most applicants will not receive the $46,000 homestead package right away. They rationally anticipate years of delay. If development of homesteads were to continue at the post-statehood rate (99 per year) and if there were no additions to the current list of 13,000 applicants, it would take 131 years to get to the bottom of the list. The median delivery time would be 65.5 years from now or 2063. If the annual development of
homesteads accelerated from 99 to 400 units per year, the median waiting time would be only 16 years.

Because a native Hawaiian will not receive the $46,000 benefit package immediately, the value of the benefit package must be discounted as future benefits are worth less than present benefits. For the remainder of the paper, we make the very optimistic assumption that either DHHL or a sovereign Hawaiian government will permanently increase the annual number of homesteads developed from 99 to 400.38 With a median waiting time of 16 years, the present value of private benefits from a homestead subsidy to a median applicant would be $4,770.

Public Benefits

In addition to the private benefits derived by native Hawaiian homesteaders, the HHL program also produces public benefits for some individuals in the broader Hawaiian community. A fundamental property of a public good is that consumption of the good by one person leaves no less of the good for a second person.39 We identify three types of benefits, analyze whether they are public in nature, and discuss how the value of these benefits to native Hawaiians may be changing over time.

A. Inalienability Per Se

Underlying some Hawaiians' desire to retain land ownership for Hawaiians is a deeply held cultural belief that the land ('aina) is more than a mere commodity to be traded for other goods. Many Hawaiians respect and revere the land as a form of spiritual and emotional sustenance. Hawaiians with these beliefs benefit from the knowledge that

38 If homestead distribution continues at only 99 homesteads per year, waiting lists and median benefits will be substantially lower.

39 This is called the nonrivalry principle. Another property of public goods, the nonexcludability principle—nonpayers cannot be excluded from consuming the public good—is not considered in our analysis.
the government's holding of the land in trust retains it for the benefit of Hawaiians and keeps it out of the hands of other Hawaii residents and foreigners.

The benefits stemming from inalienability are clearly public in nature: one Hawaiian's enjoyment of these benefits does not preclude other Hawaiians from enjoying these benefits. These public benefits should be counted in any evaluation of the HHL program, but we have no quantitative measures of their value.

B. Exclusively Hawaiian Communities

Almost all of the 5,014 residential homesteaders are located in 18 settlements reserved exclusively for native Hawaiians. The exclusivity of these communities of native Hawaiians living in close proximity to one another may increase benefits from an important public good, the Hawaiian culture.40 If these homogeneous settlements reduce the communication and transportation costs of interacting with other Hawaiians, more Hawaiians will engage in Hawaiian cultural activities. This could lead to higher rates of cultural transmission and cultural innovation. The benefits from the larger stock of Hawaiian culture are public in nature because all Hawaiians and non Hawaiians can simultaneously enjoy the more extensive and active Hawaiian culture.

Language is central to all cultures. If ethnically homogeneous Hawaiian communities contribute to the expanded use of the Hawaiian language, this may be their biggest contribution towards preserving and enhancing Hawaiian culture. Knowledge of the Hawaiian language would facilitate the transmission of cultural traditions in their original state. Community centers, schools and churches, some businesses, and

neighborhood associations in a purely Hawaiian community on HHL lands could reduce the cost of transmitting cultural knowledge and practices from one generation to another in an environment partially sheltered from the rest of society.41

A stronger Hawaiian culture could also allow individual Hawaiians who attain a stronger cultural identity to become more productive workers or to be perceived as individuals of higher integrity. The enhanced productivity of contacts with outsiders could generate higher per capita incomes for these Hawaiians as well as a higher status in the overall community.

Despite these potential benefits from a stronger Hawaiian culture, the cultural benefits derived from exclusively Hawaiian communities are much lower today than in 1921. Over the last 75 years there have been significant declines in transportation and communication costs. These cost reductions allow Hawaiians from relatively distant neighborhoods to meet more frequently to engage in cultural activities and to use more regularly the telephone, radio, television, and computer networks to organize, participate in, transmit, and receive Hawaiian cultural events.

Exclusively Hawaiian HHL communities may also generate costs for residents. First, residents of these settlements may have higher costs of interacting with outsiders. This could induce fewer contacts with fewer outsiders42 and increase the cost of acquiring job skills or interacting and trading with the larger community of Hawaii residents.43

Some residents in HHL communities may become more fluent in Hawaiian but at the

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42 These higher costs could be beneficial if residents were worried about cultural "pollution."

43 These costs may be offset by benefits from living in an exclusively Hawaiian settlement. If living in the HHL settlement instills values in native Hawaiians that are also valued by other Hawaii residents, e.g. discipline, trust, responsibility, then their value to employers could increase even if they have higher costs of acquiring job skills or interacting with the outside community.
significant cost of becoming less fluent in English. This could lead to reduced employment opportunities and lower incomes and economic status. Second, many Hawaiian cultural activities take place in the central urban core rather than in rural HHL communities. Since native Hawaiians in the predominately rural HHL settlements face higher transportation costs (including the opportunity cost of travel time) than native Hawaiians living in urban core neighborhoods, this factor may deter them from participating in the many Hawaiian cultural activities taking place in central Honolulu.

Native Hawaiians are not united in their preferences for residing in exclusively Hawaiian versus ethnically mixed communities. Some favor it, while others would prefer to take the homestead subsidy amount and find an alternative location integrated with the rest of the population. The experience of Native Americans isolated on U.S. mainland reservations provides a useful comparison. Isolation has not been a satisfactory means of conserving and enhancing most Native American cultures, yet the alternative of assimilation with the majority has also proven unsatisfactory to many Native Americans.

C. The Role of HHL Assets in Reestablishing Sovereignty

Many Hawaiians view their dispossession from the land as synonymous with their loss of sovereignty. They now look to establishing a land base as an essential part of reestablishing sovereignty. The contribution of Hawaiian land ownership to the potential success of sovereignty is clearly a public benefit, as the higher probability of achieving sovereignty can be simultaneously enjoyed by all Hawaiians.

The existence of the HHL program may strengthen political arguments that the U.S. government should recognize Hawaiian sovereignty. The U.S. federal government

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45 At this time there is no consensus among Hawaiians regarding the meaning of sovereignty. It is sufficient for our purposes that sovereignty is some unspecified degree of independence from the existing state and federal governments.
and several states have trust relationships with sovereign Native American tribes. In dealing with these tribes' lands and resources, the federal government is a trustee with certain fiduciary responsibilities. Some native Hawaiians argue that the HHCA established a similar trust relationship and that it constitutes an implicit recognition of their sovereignty. Thus, native Hawaiians may value the HHL program not just because of private benefits conferred on individual native Hawaiians, but because the program strengthens Hawaiian political efforts to reestablish Hawaiian sovereignty.

Second, the HHL program may contribute valuable assets to the government of a new sovereign nation. The HHL program holds $728 million in (mostly non land) assets that future leaders of a sovereign nation would control and could steer to political supporters. The lure of controlling these assets should provide powerful incentives to Hawaiian political leaders fighting for sovereignty.

Summary

The HHL program yields private benefits to homestead applicants typically valued at only $4,770 and three possible public benefits to native Hawaiians in general: (1) land inalienability per se; (2) the contribution to Hawaiian culture from exclusively Hawaiian communities; and (3) increased support for sovereignty. While we do not attempt to measure the value of public benefits, the value of private benefits is surprisingly low given the large resource base associated with the program.

4. SALE OF ASSETS AND MONEY DISTRIBUTION

46 We note that the existence of HHL communities is neither necessary nor sufficient to increase the stock of Hawaiians culture, to achieve sovereignty, or to have Hawaiians participating in traditional farming. One can argue that subsidized farming on HHL’s 1,038 agricultural homesteads helps to preserve the traditional Hawaiian way of life. This argument goes beyond the private benefits to the farmer and focuses on the public benefits realized by non farmers. The public benefits stem from the knowledge that native Hawaiian farm-homesteaders are preserving a lifestyle based on farming the land. As late as the 1870s, most Hawaiians derived their own food and income directly from the more fertile and watered lands to which they had access, and gathering and cultivating were a way of life. We do not consider these potential benefits in our analysis because we are unable to establish whether the HHL program increases or decreases the number of Hawaiians participating in traditional farming.
In this section we consider a radical policy initiative: the sale of HHL assets and distribution of the proceeds to the 13,000 native Hawaiians on the homestead waiting list; and the award of unrestricted fee-simple title to the 6,350 homesteaders.

We assume that it will take at least three years to implement the sale of assets and distribution of the proceeds to native Hawaiians. Thus, our initial task is to determine how much money could be raised by selling HHL resources over a three-year period. An estimate is provided in Table 3.47. It shows that if the state does not borrow to retire its future obligations, $341 million will be available. If the state does borrow, $802 million will be available.

If the number of native Hawaiians eligible to receive money payments were to remain at 13,000, money distribution with borrowing would yield $61,692 per applicant. If there were no borrowing, the distribution schedule would be $26,231 three years from now, plus $3,038 per year for the next 16 years, and $731 per year thereafter. Discounted at the Hawaiian discount rate of 15 percent, the scheduled payments would have a present

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47 DHHL has $105.3 million in cash and $6.1 million in payables. Assuming the payables are short-term obligations to be paid off this year, the net cash is $99.2 million. It compounds at 6 percent to $118.1 million in three years. All of the program's direct mortgage loans and other receivables with current book value of $47.9 million must be reduced in value to allow for the high loan delinquency rate. Assuming a current market value of 80 percent of book value and a sales cost of 10 percent of market value, the net value is $34.5 million. It compounds at 6 percent to $41.1 million in three years.

Income from leases, licenses and permits totaling $4.5 million per year derived from lands currently valued at $75.0 million is now committed to two uses: (1) servicing $19.7 million of revenue bonds mostly issued in 1991 for financing infrastructure and (2) DHHL operations. If $19.7 million, after 10 percent sales costs, could be raised from (unused and revocable leased) land sales, the bonds could be retired. The remaining land, valued at $53.1 million, would provide revenues for curtailed operations over the next three years. Sale of the land, net of sales costs, would yield $47.8 million in three years.

The annual $1.5 million operating appropriation, the annual $8 million CIP authorization, and the annual $30 million payment (over 19 years) for breaches could conceivably be capitalized. We assume that the state continues to pay these annual obligations for the next three years out of its general fund. After three years, these payments should compound to $30.2 million for operating and CIP appropriations and $95.5 million for breaches. If bonds were then issued for the remaining state obligations, DHHL would raise $158.3 million for the annual $9.5 million appropriation and $303.2 million for the annual $30 million appropriation over 16 years. The total amount raised would be $386.5 million.

Because the purpose of the liquidation program is to discontinue development and administration of the homestead program, DHHL can also sell property and equipment with book value of $13.1 million. Net of sales costs, it could yield $8 million in three years.
value of $44,818. Of course, an announced money distribution is likely to attract additional applicants who are eligible. This could include an estimated 5,855 additional native Hawaiians (over the age of 18) now residing in the state, and 14,036 native Hawaiians over the age of 18 who mostly reside on the U.S. mainland.48

There are two advantages of money distribution. First, money could be distributed much earlier than homesteads, thereby avoiding intertemporal costs. Second, money distribution would avoid the contemporaneous costs associated with both government production of housing and homesteader consumption of a government-determined housing package. Money grants would allow native Hawaiians to purchase or rent new or used homes on fee-simple land from the entire stock of housing in Hawaii, over 400,000 units.49 Alternatively, some families could elect to use the money to purchase other goods higher on their list of priorities, such as higher education, health care, or a business.

In contrast, the HHCA established a paternalistic program that has restricted the freedom of individual Hawaiians. This program has allocated specific sites for homesteads, then planned, developed, and often constructed the housing. Hawaiians who avail themselves of the program subsidies must follow the government's timetable and occupy the government's assigned lots and homes. Homesteaders are currently allowed to sell their leaseholds only to other native Hawaiians. Transaction prices are well below those observed on similar lots on the open market.50 The Hawaiian Homes Commission must approve sales. In sum, these restrictions severely limit homesteaders' options. A household may prefer to live near the Kamehameha Schools on non-HHL land while the

48 See SMS, supra note 5, particularly Figure 2 and Table 8. The homestead waiting list currently includes 962 applicants who live outside of Hawaii.


50 Some advertisements for homestead sales have regularly appeared in neighbor island newspapers but rarely in Oahu newspapers.
children are growing up; at a later stage in life, the smaller household may prefer to live in a condominium and ultimately in a nursing home. The restrictions also reduce the market value of the homestead, thereby hampering the owner's mobility and decreasing the owner's welfare.51

Money distribution enables the creation of a public good: fairness in the assignment of HHL resources. Subsidies now in the form of developed homestead lots must be distributed in large bundles costing $108,000. Because they cost so much, they can be distributed only to some applicants, leaving other applicants who are equally qualified with nothing. The divisibility of money creates the possibility of adopting fairer distribution rules, so that equal amounts can be distributed to all who are equally qualified.52

A second part of this reform proposal awards fee-simple title to the existing homesteaders. Conversion of the existing 6,350 homesteads to unrestricted fee-simple

51 There has been some resentment within the Hawaiian community concerning the resale of homesteads to other native Hawaiians. The recipient of an improved homestead lot obtains a subsidy valued at $46,000. If he is allowed to sell the leasehold (with or without a structure) he can profit from the subsidy and does not fulfill a perceived obligation to occupy and use the land. The buyer of the homestead sidesteps the existing waiting line by buying his way onto the land now instead of waiting. Third parties in the waiting line have objected, and the DHHL has lobbied the past two legislatures (so far without success) to curb the practice of native Hawaiian sales.

52 There are several alternative rules embodying horizontal and vertical equity criteria that could be adopted if cash were the form of entitlement. As an example of horizontal equity (equal treatment of equally situated people), all people with 50 percent or more Hawaiian blood who have not yet received homesteads could be classified as equal and given equal cash grants. Alternatively, as an example of vertical equity (different treatment of differently situated people), Hawaiians could be given cash in proportion to their blood quantum. Other rules could take into account the financial status or family size of the recipient.

There are historical precedents in the homesteading program for changing the rules. An early resolution of the territorial legislature introduced prior to passage of the HHCA called for homesteads for all with at least 1/32 blood quantum. During certain periods of the HHL program's administration, those with 100 percent Hawaiian blood were given preference over those with only 50 percent Hawaiian blood. Also, native Hawaiians who owned their own home or who had substantial financial resources were placed in a deferred file, so that priority could be given to those in greater need of assistance. The current DHHL policy is to assign homesteads to native Hawaiians at the head of the line. See Oversight Hearings on the Hawaiian Homes Commission Act of 1920 Before the U. S. Senate Select Committee on Indian Affairs and the U.S. House Committee on Interior and Insular Affairs, Testimony of Ilima A. Pianaia, Chairman, Hawaiian Homes Commission, Aug. 9, 1989.
title yields significant benefits. Fee title makes the homestead not only mortgagable and bequeathable but also allows it to be sold. Native Hawaiians could use the sales proceeds to purchase more highly valued goods. Homesteaders would realize wealth gains equal to the difference between the market value of their homestead subsidy and their own valuation of it. Without appraisal of the existing homestead properties, it is difficult to estimate the gains that would accrue to current homesteaders. Consider, however, the following illustrative calculation. In the analysis above, we estimated that the typical homesteader values the homestead subsidy at $46,000. If the market value of a typical homesteader subsidy were (say) $53,000, then the gains to a typical homesteader would be $7,000. Summing over the 6,350 homesteaders, total wealth would increase by $44 million.

5. SALE OF ASSETS AND RENTAL AND PURCHASE HOUSING ASSISTANCE

Consider a second welfare-improving policy initiative: the sale of program assets and the distribution of sale proceeds as vouchers earmarked for expenditure on owner-occupied housing or rental housing. This policy would reduce substantially, but not eliminate, program-specific consumption and production costs.

Suppose that all 13,000 applicants for homesteads want to purchase a home and have the requisite financial resources. Recall that if all program assets could be distributed in money after three years, each beneficiary would receive $61,700. This amount, which requires state borrowing, could be earmarked for the purchase of a new or used home with location, size and characteristics freely chosen by the native Hawaiian beneficiary. If the state did not borrow to retire its future obligations to DHHL, assistance would amount to a lump sum of $26,200 in three years, an annual annuity of $3,038 for 16 years and $731 annually thereafter.

Now consider the use of the money proceeds to subsidize consumption of rental housing. This policy would be particularly helpful to homestead applicants who are not
financially qualified to purchase the house on the awarded lot. Suppose that all 13,000 wait-listed applicants apply for rental assistance. How much assistance could be made available per month? A real annual yield of 6 percent on the cash proceeds from the asset liquidation allows every native Hawaiian tenant to receive $308 per month (1997 dollars) in rental vouchers in perpetuity. This amount would be in addition to any federally funded Section 8 assistance. This alternative does not require any state borrowing.

Both housing assistance programs generate program-specific consumption losses. The rental program retains intertemporal costs because it provides a stream of payments over a long time period and recipients would prefer receiving a lump-sum payment now. Both the purchase and rental programs also suffer from contemporaneous program-specific costs. Program-specific production costs derive from the government’s cost of administering the two programs. Program-specific consumption losses result because beneficiaries cannot convert the housing assistance into more highly valued goods. We assume that Hawaiian rental and purchase assistance programs would generate program-specific consumption costs similar to those observed in public housing programs on the U.S. mainland, i.e., that recipients would value rental or purchase vouchers at 72 percent of their cost. This means that recipients of $309 in monthly rental vouchers would value them at only $222 and that recipients of the purchase program’s voucher of $61,700 would value it at only $44,430. A housing program that offers a choice of purchase or

53 SMS, supra note 19, p. 19.

54 The earlier availability of rental assistance actually distributed over many years would be valued by native Hawaiians at the 15 percent personal discount rate, whereas the constant amount of delayed assistance is based on compounding at only 6 percent. In other words, despite the benefits enjoyed by Native Hawaiians from the stream of rent assistance payments, they would be better off if they could have the present value of this stream now to increase their current consumption.

55 A comparable mainland housing program is the Section 8 Existing Program. Our analysis only measures contemporaneous costs and does not capture intertemporal costs. See Table 2.
rental vouchers would, however, be far more beneficial to native Hawaiians than a program offering just one type of voucher.

6. SALE OF ALL HHL ASSETS EXCEPT LAND

Many Hawaiians are likely to object to the reform proposals outlined above because they involve the sale of HHL lands. Fortunately, almost all of the reductions in program-specific costs generated by our reform proposals can be realized without selling the trust lands. Table 3 shows that sale of the trust lands (without homes or infrastructure) would bring in only $47.8 million, or just 6 percent of the proceeds that could be realized from selling all HHL assets. Most of the $47.8 million could be gained without sale if the acreage were offered on very long-term leases (say, 99 years) with a requirement of up-front, lump-sum lease rents (as is the practice in Hong Kong).56 In this way income from land could be capitalized without relinquishing fee title. If the 160,000 acres were leased to the highest bidder, regardless of race, revenues would be maximized. If the lands were leased only to native Hawaiians, the market for the lands and the realized rental revenues would both be smaller. Another option would be to assign the land—free of charge and without free state-provided infrastructure and mortgage insurance—to native Hawaiians on the waiting list. DHHL made such “accelerated awards in the mid-1980s. In this case, the amount of cash raised in 3 years would be reduced by the full $47.8 million to $754 million.

Another objection to our reform plans is that the proposed sale of homestead mortgage loans ($41 million in proceeds) would make mortgaged homesteaded lands

56 Approximately 89,000 acres of this total are currently not leased out, presumably because the land has little market value. See Sumner J. La Croix, James Mak, and Louis A. Rose, “The Political Economy of Urban Land Reform in Hawaii,” Urban Studies, Vol. 32, 1995, p. 999 for a history and evaluation of residential leaseholds in Hawaii. Since we conclude that the system of residential leaseholds in Hawaii has not been particularly successful, it may seem precipitous to propose an extension of such a controversial system. However, commercial leasehold in Hawaii has been generally successful, and residential leasehold has worked well overseas when it has been structured differently than in Hawaii. Note also that the lessee may be able to mortgage a long-term lease even when the land itself is inalienable.
vulnerable to foreclosure on delinquent loans. To prevent foreclosure, the state’s recent increase in appropriations for new indirect loan guarantees (up to $50 million) could be reallocated to cover the existing direct loans. This would enable them to be sold at the full market value of $51 million instead of at the assumed 20 percent "discount" underlying the $41 million calculation. The additional $10 million raised from selling insured loans could be allocated to administering the loans and guarantees. In this way, the homesteaded lands would be safeguarded from foreclosure, and there would be no loss of the $41 million component of our original estimate of money available in 3 years.

Thus, the long-term leasing of approximately 160,000 acres and the insuring of mortgages on almost 40,000 acres of homesteads can be achieved while simultaneously continuing collective ownership of HHL lands by native Hawaiians. If this is the most important characteristic of ownership to native Hawaiians, then the State of Hawaii or a sovereign Hawaiian government could satisfy that preference by continuing to hold the land in trust while leasing to the highest bidder. On the other hand, if possession of land title by individual native Hawaiians is important, then some distribution of restricted rights to the 160,000 acres to individual native Hawaiians could be undertaken with a maximum cost of just $47.8 million.

7. LESS RADICAL REFORM PROPOSALS

The reform proposals outlined above require elimination or radical reform of the HHL program. Given the difficulty of amending the federal HHCA in such a radical fashion, we outline two less sweeping proposals for HHL reform. Each proposal significantly reduces program-specific consumption costs, yet does not require the sale of any HHL assets. We believe that both proposals have the potential to improve the opportunities facing native Hawaiians, Hawaiians, and other Hawaii residents.

Open the HHL Resale Market to all Hawaiians

57 This would not release DHHL from monitoring loan service or dealing with delinquencies.
Native Hawaiians are allowed to sell their homesteads, but only to other Hawaiians meeting the 50 percent blood quantum requirement. The HHL Commission must approve the sale. Not surprisingly, transactions for improved and unimproved HHL lots are rarely observed and most transaction prices are well-below those observed in adjacent mixed communities. The discount may be due to the small resale market for HHL lots.

Restricting the resale market to native Hawaiians eliminates a huge part of the potential market. Hawaii has 1.1 million residents but only 51,000 native Hawaiians. Increasing the size of the resale market could have a significant effect on transaction prices, as larger resale markets tend to contain people who place a higher value on a particular parcel. Allowing any resident of Hawaii to purchase HHL homesteads would increase the market 19-fold and would surely lead to significant increases in homestead prices. Several other ethnic groups in Hawaii have higher average per capita incomes than native Hawaiians and would likely be willing to pay more for HHL homesteads than native Hawaiians. The resulting increase in the value of current and future homesteads would produce a jump in the wealth of native Hawaiians. They would also gain critical flexibility in their opportunities over the course of their lifetime. For example, new homesteaders could choose to live in an HHL settlement when they have young children; sell their HHL homestead and live in the core city when their children are attending the Kamehameha School or are in college; and, by purchasing another homestead, return to the HHL settlement when they retire. Opening the market to all Hawaii residents would, however, entail the loss of public benefits flowing from the knowledge that HHL lands will always be in native Hawaiian hands.

58 If the buyer is financially qualified, the sale is usually approved.
An alternative is to open the HHL resale market to all Hawaiians regardless of their blood quantum. Since there are almost 200,000 Hawaiians living in Hawaii, this reform would also significantly increase the market size, albeit only by a factor of four rather than nineteen. While the increase in transaction prices would not be as great as under our first proposal, the loss of public benefits flowing from alienation restrictions on HHL lands would also be reduced as other Hawaiians besides native Hawaiians would now own and live on HHL lots. Native Hawaiian wealth would increase and native Hawaiian opportunities would gain needed flexibility. In sum, this reform could benefit both native Hawaiian homesteaders and Hawaiians with less than 50 percent blood quantum who want to live in HHL communities.

Allow HHL Leaseholders to Rent to any Resident of Hawaii

HHL residents are currently prohibited from renting their property to non-native Hawaiians. This prohibition significantly reduces their opportunities. Suppose the owner of a homestead receives the opportunity to take a temporary job in Los Angeles for two years that will significantly enhance the homesteader’s job skills. The homesteader may decide to turn down the offer because it would entail loss of the homestead, or accept the offer despite the significant cost of either losing the homestead or carrying its costs while living overseas. Allowing native Hawaiians to rent their homesteads would increase their opportunities as well as those of other residents of Hawaii desiring to live in the HHL community. Since renting HHL homesteads does not entail a loss of land to the Hawaiian land trust, public benefits from holding HHL land in trust would not be lost.

An alternative proposal is to limit rentals to Hawaiians. While rental rates would be lower under this proposal than under under the broader proposal outlined above, native

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59 Certification to vote in an OHA election would be sufficient proof to purchase a lot. This proposal would also require changing inheritance rules to allow inheritance by any Hawaiian regardless of blood quantum.

60 See SMS, supra note 25, Fig. 1, p. 4 for the 1996 estimate of Hawaiians living in Hawaii.
and non native Hawaiians would still gain from eliminating this outdated paternalistic regulation. Wealth of native Hawaiian homesteaders would increase and other native Hawaiians and non native Hawaiians who want to live in the homestead communities would gain from this opportunity.

8. POLITICS AND THE HHL PROGRAM

Various private and public groups have formulated proposals for reforming the HHL program that are quite different from the proposals we have presented. We briefly present and analyze two reform proposals, the first developed by DHHL and the second by the largest Hawaiian sovereignty group, *Ka Lahui Hawai‘i*.

DHHL is intent on expanding rather than restructuring HHL activities. It plans to expand development of its lands for housing, small farms, and pastoral homesteads. It also plans to expand its landholdings by pressuring the federal government to replace trust lands taken for its own use and to obtain compensation for past uses of these lands.

Although the HHCA makes no explicit provision for DHHL’s direct support of native Hawaiian economic development, recent events suggest that it will increasingly assist native Hawaiians in commercial endeavors. First, since 1978 native Hawaiians have been given the first opportunity to obtain general leases of non homesteaded lands, and they have increasingly obtained new commercial leases. Second, DHHL has received

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61 Some Hawaiian groups have formed to increase native Hawaiian access to the existing HHL program. Various non profit groups are currently attempting to get native Hawaiians onto the land by educating them about their rights, legally supporting them in claiming their rights, and lobbying the DHHL and the state legislature for increased program funding. *Hui Kako‘o Aina Ho‘opulapula* is an organization made up of native Hawaiians currently on the DHHL wait-list. Established in 1994, its primary purpose is to place more native Hawaiian beneficiaries and their families on HHL land. To this end, it assesses problems associated with DHHL’s waiting list for receiving lands and educates wait-listed families on their resolution. *Hui Kako‘o Aina* assisted DHHL in negotiating the $600 million settlement from the state for past breaches of the trust. Hawaiian Network is another organization that focuses on placing native Hawaiians on the DHHL waiting list. It educates native Hawaiians about their genealogy and eligibility for HHL benefits and assists them in applying to DHHL for benefits. Both groups helped 1,500 applicants for HHL lands join the waiting list in 1995. Each operates under the premise that as the waiting list grows and beneficiaries become better organized, political pressure to fund more capital improvements and to accelerate homestead development will grow and lead to more state funding for the HHL program.
petitions from homesteaders wanting to use their homesteads for commercial activities. Because commercial use is inconsistent with the HHCA, DHHL is considering asking the U.S. Congress to amend the Act accordingly. Both developments signal increased future use of HHL lands and resources to generate businesses and jobs for native Hawaiians.62

*Ka Lahui Hawai‘i* is the largest and most well organized group of Hawaiians advocating self-determination for Hawaiians under a sovereign Hawaiian nation. It is the only such organization with a published plan suggesting future uses of HHL resources. Although *Ka Lahui’s* overall plans for sovereignty are beyond the scope of this article, its position that the wardship of Hawaiian resources under the State of Hawaii should be terminated clearly applies to HHL resources. In *Ka Lahui’s* master plan, the state is to transfer HHL lands and financial resources to the sovereign Hawaiian Nation.

The *Ka Lahui* plan suggests that the HHL lands (with one possible exception) would be pooled with state-ceded lands, federal-ceded lands, and private land trusts in a National Land Trust.63 The Trust is to be managed "to ensure their appropriate use for future generations, and most importantly, to prevent other sovereigns and private corporations" from depleting, encumbering, taxing, or otherwise utilizing and diminishing Hawaiians' resources. These lands could then be managed as fungible properties. It is likely that the new nation would undertake major bureaucratic reorganization, eliminating current agencies and revamping jurisdictional lines. In all likelihood, HHL financial and land resources would no longer be distinct from the other land and financial resources of the Hawaiian Nation.

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62OHA, the principal public agency responsible for the performance, development and coordination of programs and activities relating to Hawaiians, has several programs that complement DHHL activities. OHA supports two loan fund programs for Hawaiian homesteaders, one for down payments and the other for home improvements. OHA also assists current lessees and applicants on the waiting list, with legal cases related to the HHL trust. It is now developing a rental housing project on HHL lands and providing native Hawaiians with first priority for access to the rental units. OHA's rental housing project includes a community center and a commercial center to create businesses and jobs.

63OHA is currently categorizing the ceded lands according to use and developing plans for their acquisition.
Ka Lahui's master plan allows for one exception to its take-over of DHHL assets: existing homesteaders can choose whether to remain lessees of the state or to become lessees of the Hawaiian Nation. In either event, the leases will remain in effect indefinitely. Ka Lahui’s plan provides no other specific guidelines for the provision of housing. It appears that the organization would support a program similar in some respects to the existing HHL program. It would be characterized by land inalienability, long-term leases, a prohibition on land mortgages to non-Hawaiians, and government involvement in the planning and development of land and the financing of housing for Hawaiians. While the new Hawaiian Nation would probably seek to eliminate the current HHL program, Ka Lahui’s plan indicates that the new Nation would institute similar arrangements.

Beyond housing, the Hawaiian Nation would enable private citizens to develop businesses on some of the Nation's lands. According to the plan (Section VII), "economic development must be culturally appropriate and environmentally responsible ... The right to determine whether development occurs and how development proceeds" will be vested in the new government. Ka Lahui’s master plan indicates that the new nation would put some of its land resources to work in public enterprises. In referring to the economic development of the new nation, the plan states that the National Land Trust and capital assets will be used "to support economic initiatives for housing, employment, education, and the development of its own businesses and those of its citizens."

9. CONCLUSIONS FROM ECONOMIC ANALYSIS

Table 4 compares the private benefits of six of the possible HHL programs discussed above. We estimate the present value of private benefits delivered to each of the 13,000 current applicants. The existing homestead program delivers benefits worth $4,770 to the median applicant on the waiting list. The rental voucher program (with no state borrowing) delivers $11,700 and the purchase voucher program (with state borrowing) delivers $29,200. The sale of all assets and distribution of lump-sum money grants (with no borrowing) delivers $29,500; with state borrowing it delivers $40,600.
The sale of all assets except land and distribution of lump-sum money grants ("the restricted lump-sum grant program") delivers $38,200. The large differences between the typical recipient's values in Table 4 are not explained by differences in resource commitment, as all six programs commit the same amount of resources to native Hawaiians. Rather, the differences reflect the different degrees of program-specific production and consumption costs embodied in each program.

Table 4 summarizes only the private benefits generated by each program, and an analysis of private benefits alone does not provide an adequate basis for evaluating program efficiency or making a policy decision when alternative programs generate different amounts of public benefits. However, it is possible from estimates of the private benefits alone to infer the minimum size of one program's public benefits that would be necessary for that program to have larger total benefits than another program. Taking into account both private and public benefits, let us compare the existing HHL program with the restricted lump-sum grant program. We choose the restricted lump-sum grant program for comparison because its public benefits are closely related to those generated by the existing HHL program. Two of the existing program's public benefits, holding HHL land in trust and preserving ethnically exclusive communities as the current HHL program, are identical in the restricted lump-sum grant program.

The HHL program is more efficient if its private plus public benefits exceed the private plus public benefits of the restricted lump-sum grant program. Define $H =$HHL program, $L =$restricted lump-sum grant program, $Pri =$private goods, and $Pub =$public goods. The efficiency condition is:

(1) $H_{Pri} + H_{Pub} > L_{Pri} + L_{Pub}$.

$H_{pri}$ consists of the present value of benefits to current lessees ($H_{lease/current}$) and the present value of benefits to future homesteaders ($H_{lease/future}$):

(2) $H_{pri} = H_{lease/current} + H_{lease/future}$.
$L_{pri}$ consists of the present value of the benefits to current lessees provided with fee-simple title to their lands ($L_{fee}$) and the present value of the lump-sum grants awarded to Hawaiians on the wait list ($L_{grant}$):

$$L_{pri} = L_{fee} + L_{grant}.$$  

$H_{pub}$ consists of the value of three public goods: the value of keeping the HHL lands in trust ($H_{trust}$), the value of exclusively Hawaiian communities ($H_{exc}$), and the value attached to the higher probability of sovereignty under the HHL program ($H_{sov}$):

$$H_{pub} = H_{sov} + H_{trust} + H_{exc}$$

$L_{pub}$ consists of the value of three public goods: the value of keeping the HHL lands in trust ($L_{trust}$), the value of exclusively Hawaiian communities ($L_{exc}$), and the value attached to the increased fairness in allocating HHL assets to native Hawaiians ($L_{fair}$):

$$L_{pub} = L_{trust} + L_{fair} + L_{exc}$$

Manipulation of the five equations yields:

$$L_{grant} - H_{lease/future} < H_{sov} - L_{fair} - (L_{fee} - H_{lease/current}).$$

Our analysis provides an estimated value for the expression's left-hand side, but cannot attach values to expression's right-hand side. Since we know that $H_{sov} > 0$, $L_{fair} > 0$ and $L_{fee} - H_{lease/current} > 0$, we can use (6) to determine a lower-bound for $H_{sov}$ that must be met if the existing HHL program is to be more efficient than the restricted lump-sum grant program. We do this by assuming that $L_{fair} = 0$ and $L_{fee} - H_{lease/current} = 0$.

Thus, the lower-bound criterion for HHL program efficiency is:

$$L_{grant} - H_{lease/future} < H_{sov}. $$
Proceeds available for awarding lump-sum grants amount to $496 million (L_{grant}) and promised future leasehold subsidies are valued at $62 million (H_{lease/future}). The difference, $434 million, yields the following lower-bound condition for HHL program efficiency: each of the roughly 35,000 native Hawaiian households must be willing to give up at least $12,400 in exchange for the higher probability of attaining Hawaiian sovereignty under the current HHL program than under the restricted lump-sum grant program. Since rigorous studies on the value of sovereignty to native Hawaiians have not been conducted, it is unclear whether a majority of native Hawaiians would accept such an offer.

10. THE OUTLOOK FOR REFORM

Many native Hawaiians may not currently support radical change in the HHL program. First, the average household may be unwilling to sacrifice $12,400 for the program's contribution to sovereignty. Second, native Hawaiian interest groups have conflicting interests concerning HHL reform. Among the 13,000 applicants, those near the head of the line will view reform differently than those near the tail. The 6,350 existing homesteaders and the 14,036 native Hawaiians residing overseas have still different concerns. Third, the primary resistance to our proposals to sell some or all of HHL's assets and distribute the proceeds in the form of either cash or housing assistance will

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64 The amount of money is 13,000 applicants multiplied times $38,157. The value of promised leasehold subsidies is 13,000 times $4,771.

65 There are 6,350 native Hawaiian households with homestead leases and 13,000 native Hawaiian individuals or households waitlisted for leases. There are also 5,855 native Hawaiians over 18 residing in Hawaii who are neither lessees nor applicants. In addition, there are 14,036 native Hawaiians overseas. Our estimate of 35,000 native Hawaiians who might value HHL public goods is a rough approximation based on these figures.
understandably come from two groups of Hawaiian leaders. The first group is comprised of political leaders who currently control HHL assets and do not want to relinquish that control. This group, which includes the DHHL management and bureaucracy, would like to continue the existing program with increased appropriations from the state. The second group is comprised of political leaders who hope to control the HHL’s assets in the future. This group includes Hawaiians at the forefront of the sovereignty movement who want a land base and other program resources to help establish and operate the new government.

A new Hawaiian government would be an improvement in the eyes of many Hawaiians, but *Ka Lahui*’s tentative plans for the HHL program and lands raise a note of caution concerning its socialist economic policies and general hostility to market institutions. The ideological preference for more state and less market control of resources under a sovereign Hawaiian state would come at the cost of the welfare of Hawaiians, native Hawaiians, and the overall Hawaii community. Given the large program-specific costs built into the current HHL program, *Ka Lahui*’s expansion plans would merely compound the HHL program’s current problems. While many Hawaiians identify Western imperialism and large Western business firms as responsible for the reduced economic status of Hawaiians in Hawaii, public housing programs on the U.S. mainland and governmental allocation of land in Eastern Europe and Asia provide far ranging evidence that increased government control of HHL resources under a sovereign Hawaiian state would only serve to compound the HHL program’s already significant waste.66

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66 For example, see Alain Bertaud and Betrand Renaud, *Cities without Land Markets: Lessons of the Failed Socialist Experiment*, World Bank Working Paper no. 227, 1993 and Alain Bertaud and Betrand
The evolution of future control of the Hawaiian Home Lands may parallel that explained in a recent political analysis of Native American land rights.67 Fred McChesney investigated the U.S. policy of establishing concentrated land holdings for Native Americans and the subsequent placement of alienability constraints on those lands. One argument that had been set forth as an explanation for these federal policies was that they would assist in the preservation of the Native American culture. However, after studying the behavior of the U.S. Congress and the Bureau of Indian Affairs, McChesney concluded that conservation of the Native American culture was not the underlying motive. Rather, the land policies stemmed from the desire of politicians and bureaucrats to obtain power over the lives of Native Americans.

Our analysis leads us to conclude that the HHL program should be fundamentally reformed. It generates high program-specific costs in providing private benefits and operates unfairly, dispensing large housing subsidies to a few applicants at the head of the line and a promise worth relatively little to the others. There is no reason to believe that the establishment of a new Hawaiian government and the transfer of the HHL program to this government will yield any improvement in the program’s efficiency or fairness. Until the program is constitutionally reformed, native Hawaiians—especially those who have not received homesteads—will continue to be shortchanged by an outdated paternalistic program. Regardless of whether the HHL program is administered by the State of Hawaii or a sovereign Hawaiian government, native Hawaiians deserve fundamental reform.

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67 See supra McChesney, p. 297-335.
TABLE 1
RESOURCES OF THE HHL PROGRAM
(June 30, 1996)

<table>
<thead>
<tr>
<th>Assets</th>
<th>$186.2 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>$105.3 million in cash and certificates of deposit</td>
<td></td>
</tr>
<tr>
<td>$46.7 million in outstanding principal and interest</td>
<td></td>
</tr>
<tr>
<td>$1.2 million in other receivables</td>
<td></td>
</tr>
<tr>
<td>$13.1 million in property and equipment</td>
<td></td>
</tr>
<tr>
<td>$19.7 million to be provided to service bonds</td>
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</table>

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>$25.8 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>$19.7 million in bonds payable</td>
<td></td>
</tr>
<tr>
<td>$6.1 million other</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Equity</th>
<th>$160.4 million</th>
</tr>
</thead>
</table>

Expected Annual Revenues
- Leases, licenses and permits .......... $4.5 million
- Appropriations for operations .......... $1.5 million
- 19 Payments for Past Breaches of the Trust ...... $30 million
- CIP Revenues from Bond Authorization .......... $8 million

Other Resources
20% of revenues from state-leased sugar lands; from sugar lands converted to other uses; and from the sale of state-leased sugar lands. Annual revenues from sugar rents and water licenses derived from public lands under the administration of the DLNR have dwindled to $.5 million in recent years, implying a relatively negligible capital value. The sugar lands are in a state of transition, and the capital value of these lands in alternative uses may still be quite substantial. Other resources include 88,886 acres not in use; 8,579 acres to be transferred by the state; 1,548 acres (Anahola-Kamalomalo & Waimanalo) to be transferred by the state; up to 200 acres (Bellows) to be transferred by the federal government via the state; additional acres to be transferred by the state to compensate HHL lands used for roads; and additional acres of non-ceded excess land (e.g., Barbers Point) to be transferred by the federal government via the state. See DHHL, Annual Report 1996.
TABLE 2
ESTIMATES OF PROGRAM-SPECIFIC PRODUCTION AND CONSUMPTION COSTS IN U.S. PUBLIC HOUSING PROGRAMS

<table>
<thead>
<tr>
<th></th>
<th>Program-Specific Consumption Costs (B/R)</th>
<th>Program-Specific Production Costs (R/C)</th>
<th>Overall Prog.-Specific Costs (B/C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer-Oriented</td>
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<td></td>
</tr>
<tr>
<td>Public Programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 23</td>
<td>.88</td>
<td>.74</td>
<td>.65</td>
</tr>
<tr>
<td>Housing Allowances</td>
<td>.93</td>
<td>.88</td>
<td>.82</td>
</tr>
<tr>
<td>Section 8 Existing</td>
<td>.82</td>
<td>.74</td>
<td>.72</td>
</tr>
<tr>
<td>Producer-Oriented</td>
<td></td>
<td></td>
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<tr>
<td>Public Programs</td>
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<td></td>
<td></td>
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<tr>
<td>Public Housing</td>
<td>.86</td>
<td>.50</td>
<td>.43</td>
</tr>
<tr>
<td>Section 236</td>
<td>.74</td>
<td>.61</td>
<td>.45</td>
</tr>
<tr>
<td>Section 8 New</td>
<td>.63</td>
<td>.71</td>
<td>.45</td>
</tr>
</tbody>
</table>
TABLE 3
CASH AVAILABLE TO HHL AFTER THREE YEARS

<table>
<thead>
<tr>
<th>Source (in millions)</th>
<th>Method of Calculation</th>
<th>Amount (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash $105.1</td>
<td>Net payables $6.1</td>
<td>$118.1</td>
</tr>
<tr>
<td>Mortgage loans $47.9</td>
<td>Adjust for delinquency and sales cost</td>
<td>$41.1</td>
</tr>
<tr>
<td>Income from land $4.5/yr.</td>
<td>Cap. value $75, net of: $19.7 bond retirement, 3 years oper. expenses, and sales cost</td>
<td>$47.8</td>
</tr>
<tr>
<td>Legislative approp. $9.5/yr.</td>
<td>$9.5/yr. 1st 3 years</td>
<td>$30.2</td>
</tr>
<tr>
<td>oper. and CIP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breaches of trust $30/yr.</td>
<td>$30/yr. 1st 3 years</td>
<td>$95.5</td>
</tr>
<tr>
<td>Property and equip. $13.1</td>
<td>Adjust book value down; net sales cost to $8.0</td>
<td>$8.0</td>
</tr>
</tbody>
</table>

Subtotal Available Without Borrowing .............. $340.7

Legislative approp. $9.5/yr. 
oper. and CIP 

Breaches of trust $30/yr. 
Cap. value remaining 16 years 

Additional Amount Available With Borrowing...$461.5

Total ............................................................................... $802.2
## TABLE 4

A COMPARISON OF ALTERNATIVE PROGRAMS

<table>
<thead>
<tr>
<th>Program</th>
<th>Present Value of Private Benefits to HHL Beneficiaries in 3 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing HHL Program</td>
<td>$4,771</td>
</tr>
<tr>
<td>Rental Assistance (No State Borrowing)</td>
<td>$11,682</td>
</tr>
<tr>
<td>Purchase Assistance (With State Borrowing)</td>
<td>$29,213</td>
</tr>
<tr>
<td>Lump-sum Grant from all Assets (No State Borrowing)</td>
<td>$29,469</td>
</tr>
<tr>
<td>Lump-sum Grant from all Assets (With State Borrowing)</td>
<td>$40,569</td>
</tr>
<tr>
<td>Lump-sum Grant from all Assets Except Land (With State Borrowing)</td>
<td>$38,157</td>
</tr>
</tbody>
</table>