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The Social Impact of Social Funds in Jamaica: A 'Participatory Econometric' Analysis of Targeting, Collective Action, and Participation in Community-Driven Development

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Qualitative data from a case study of the Jamaica social investment fund reveal that the social fund process is elite-driven and decision-making tends to be dominated by a small group of motivated individuals. However, there is broad-based satisfaction with the outcome. Quantitative data from 500 households mirror these findings by showing that, ex-ante, the social fund does not address the expressed needs of the majority of individuals in the majority of communities. By the completion of the project, however, 80 per cent of the community expresses satisfaction with the outcome. An analysis of the determinants of participation reveals that better educated and better networked individuals dominate the process. Propensity-score analysis demonstrates that JSIF has had a causal impact on improvements in trust and the capacity for collective action, but these gains are greater for elites.

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I. INTRODUCTION

Development assistance is becoming increasingly community-driven,[1] but there remain more questions than clear answers on how community-driven development (hereafter CDD) really works. Mansuri and Rao [*2004*], in a recent literature review, point out that there are very few reliable impact evaluations of CDD projects, and even fewer that credibly test three key assumptions behind CDD: that it improves the match between what development assistance provides and what people need – that is, it is 'demand-driven', that it is 'empowers' the poor, and that it improves the capacity for collective action.[2] One effective way of answering these important questions is by analysing how the CDD process works inside communities, within their particular political, social and cultural systems. Previous research on CDD has tended to use either survey data from large samples [*for example, Paxson and Schady, 2002; Newman et al., 2002*], or qualitative information from assessments of beneficiary communities (termed 'beneficiary assessments') that received funding [*for example, Owen and van Domelen, 1998*]. Both these types of research are limited in their ability to answer the questions posed above. Quantitative analysis can establish broad patterns showing the impact of an intervention on poverty and wellbeing, but is less useful in understanding the institutional context within which CDD operates. Beneficiary assessments, on the other hand, can be very helpful in probing the social aspects of CDD, but are subject to problems of selection bias, lack of generalisability, and have limitations in establishing the causal impact of a project.

This article will attempt to provide some answers to these questions by integrating quantitative and qualitative methods in order to conduct an in-depth analysis of data from five pairs of communities selected randomly from a universe of about 200. In each pair, one community[3] has received assistance from the Jamaica Social Investment Fund (JSIF), a community-driven project assisted by the World Bank, while its very similar matched counterpart has received no assistance. Qualitative evidence from focus-group discussions and in-depth interviews will draw out the institutional and cultural context within which the social fund operates. It will sketch the various agents in the community, how community leaders interacted with their community, and how the community perceived its gains from the project. Quantitative data will then be analysed to evaluate the impact of social funds on measures of participation and collective action capacity, using propensity score matching methods and regression analysis. This mixed method approach will permit a nuanced and contextualised understanding of the social fund process in Jamaica, while also providing some evidence of the causal impact of the social fund on the social, political, and economic life of individuals within the

community. The in-depth data on social fund communities, however, is traded off with the size and representativeness of the sample. Thus, our findings should not be read as an evaluation of the JSIF portfolio of projects, but as a case study.

Social Investment Funds (SIFs) are perhaps the most visible mechanisms of CDD assistance. A social fund is both an organisation and a process. Typically, it is a government agency that is set up as a semi-independent institution reporting directly to a senior government official – the president, prime minister or finance minister. Its role is to disburse grants directly to communities in order to fund the construction of a public good, with the communities contributing a small proportion of the costs (varying from 5 to 20 per cent), in cash, labour or materials. The key idea behind SIFs, and other mechanisms of community-driven development, is that because communities participate in choosing projects, the match between what a community needs and the project it receives is much better than in a traditional 'top-down' development project. Several authors have also speculated that the process of applying and obtaining funds, and constructing and managing a facility, improves the community's capacity for collective action [*for example, Narayan and Ebbe, 1997; Rao, 2001*]. The belief is that this in turn results in greater social cohesion, improves the community's ability to manage its own future, and sets it on a sustainable path towards poverty reduction.

Recently, the literature on CDD in general, and social funds more specifically, has seen rapid growth. Conning and Kevane [*2002*] review, the theoretical and empirical literature related to community-based targeting (CBT), a specific type of CDD where the community assists in targeting poor families in order to transfer cash or food. They show that CBT possesses both positive and negative characteristics – the benefits include utilising local information and the consequent potential for improved targeting, but the risks are the increased opportunity for capturing benefits by elites within the community as well as the possibility that local preferences may not be egalitarian. Galasso and Ravallion [*2004*] look at this within the context of a CBT programme in Bangladesh. They find that power within the community affects how the funds are disbursed, but that targeting within the village improves with programme size, lower inequality, and proximity to the programme office – among other things. Khwaja [*2001*] moves away from CBT to look at the community-based provision of public goods in the Agha Khan Rural Support Project in northern Pakistan. He finds that community participation in non-technical decisions improves project maintenance, but also that, when communities get involved in technical decisions, it results in worse projects. Repeating a theme emphasised in several articles [*for example, Abraham and Platteau, 2004; Alesina and la Farrara, 2000*],

Khwaja finds that more heterogeneous communities are worse off, though better leadership seems to have a positive effect.

On social funds, more specifically, Paxson and Schady [*2002*], assess poverty targeting in FONCODES – the Peruvian social fund – using district level data on FONCODES expenditures and poverty. They find that the fund, which emphasised geographic targeting, successfully reached the poorest districts, but that it did not reach the poorest households within such districts. In fact, they find that within the targeted districts, better-off households are slightly more likely to benefit from FONCODES investments. Chase [*2002*] evaluates the Armenia Social Fund (ASIF) by propensity score matching to compare targeted communities with communities that had not received project funding but were in the pipeline for them. He finds that while the social fund is targeted toward areas with the poorest infrastructure, these are not always the poorest areas. He also finds that the fund was slightly regressive in targeting households in rural areas. ASIF, like other social funds, required a community contribution. Chase reports some anecdotal evidence that this may have led to a selection against the poorest communities, who are often unwilling or unable to contribute toward community public goods. Pradhan and Rawlings [*2002*] evaluate the Nicaragua Social Fund using similar techniques. They find that some, but not all, social fund investments are well targeted toward poor communities and households. Overall, the Operations Evaluations Department (OED) social fund evaluation [*World Bank, 2002*], reviewing these and other evaluations of social funds, concludes that while social funds have had mildly progressive geographic targeting, they have been less effective in targeting poor households.

Studies on social funds have also looked at their impact on the delivery of public services. Facilities constructed with community involvement tend to be quite effective in improving access to public services. Paxson and Schady [*2002*], for instance, find that the FONCODES increased school attendance, particularly among younger children. Chase and Sherburne-Benz [*2001*], evaluating the Zambia social fund, report similar findings in relation to school attendance. They also find that the presence of a school constructed by the social fund seemed to increase household education expenditure, and that the presence of a health facility increased the use of primary care, leading to an increase in vaccinated children. Newman *et al.* [*2002*], in a careful evaluation of the Bolivian social fund which uses both panel data and random assignment approaches, find that there was a significant reduction in under five mortality on account of the provision of health clinics, but that education projects had little impact on education outcomes. They surmise that this was perhaps because investments in health went beyond merely providing infrastructure and included medicine, furniture, and other necessary inputs.

They also find that water projects improved access to water, as well as improved water quality, but only when community-level training was provided. This suggests that, in order for participatory projects to succeed, they need to go beyond the construction of facilities and require the continuing and active involvement of external agencies who can provide marginal inputs and training.

These quantitative studies do not have much to say on the impact of social funds on participation and collective action. Evidence on these questions comes largely from Beneficiary Assessments, which are reports based usually upon Participatory Rural Appraisals (PRA) and Participatory Learning and Action (PLA) tools [*Chambers, 1997*], usually commissioned by the headquarters of a social fund, on targeted communities. They are not 'impact evaluations' in the sense that they almost never include a control group or counter-factual to calculate the causal impact of the intervention. In a survey of Social Fund Beneficiary Assessments, Owen and van Domelen [*1998*] report that they were 'uniform in their finding that beneficiaries consistently felt that social fund projects reflected priority needs of the community, confirming the essentially demand-driven nature of social funds'. They also report that the beneficiary assessments revealed a high degree of participation in the execution of projects. The beneficiary assessment for Jamaica provides a more complex picture of the relationship of JSIF to the communities it targets. Its overall findings, however, also are that JSIF has 'succeeded to a large extent in its efforts to reduce poverty and increase social capital in targeted communities'. Thus, the World Bank's evaluations and assessments of social funds, on the whole, leave a favourable impression of an innovative process that not only is targeted toward the poor, but is truly participatory and has the capacity to build a community's capacity for collective action. This positive view has led to sharp increases in lending to social fund and CDD projects, with a strong belief that CDD represents the future of development assistance.

The present article was originally written as background work for an independent review of social funds conducted by the Operations Evaluations Division of the World Bank (OED) [*World Bank, 2002*]. That report results from a similar analysis of data from Zambia, Nicaragua, and Malawi. It was largely critical of social fund projects, emphasising that they contain several weaknesses as participatory projects. It was felt that the participation often entailed much of the work being conducted by 'prime movers' drawn from elites in the community This weakness, along with other factors such as poor facilitiation, the sometimes small size of contributions, and limited menus make them less likely to benefit the poorest sections of the communities within which they work. The report also showed, however, that measures of 'bonding' and 'bridging social capital' revealed a positive increase in social

fund communities but that this increase in the capacity for collective action was driven more by a focus on 'product' (constructing the project) rather than the 'process' of participation.

Scholars outside the World Bank have also tended to be more critical of SIFs and of the CDD process – usually at the level of theory, or by analysing secondary data sources rather than examining survey data on CDD projects. Cornia [*2001*], focusing on the role of social funds as mechanisms to offset the anti-poor effects of structural adjustment programmes, argues that they play only a minor role in assisting the 'adjustment poor' and the 'chronic poor'. Tendler [*1999, 2000*], reviewing evidence from beneficiary assessments and project reports, also argues that social funds tend to work better for communities that are not so poor, and that they are vulnerable to mismanagement and political manipulation. She points out that the SIF model functions under a set of assumptions that have not been empirically tested *viz* that they are more responsive to consumer needs and preferences, and better tailored to local conditions. Importantly, she claims that many SIFs are actually *supply* driven rather than demand driven because the beneficiary communities have no say in investment choices. This claim is echoed by Abraham and Platteau [*2004*], who argue that CDD processes substantially privilege local elites over the less advantaged. This then leads to a 'serious risk that development efforts are hijacked by unaccountable members of the elite'. Abraham and Platteau focus on the structures of power and information within communities, arguing that the socio-cultural, political, and economic context of the community within which the CDD project is being implemented is extremely important in determining its success or failure.

CDD and SIFs, are, clearly, contentious topics with their advocates and detractors and many of the assumptions under which they operate have still not been put to test. We do not know if SIFs are participatory: do projects generated by SIFs meet the expressed preferences of members of the beneficiary community? Does the involvement of the community improve the community's capacity for collective action? Does the possibility of greater community involvement and ownership result in more sustainable facilities? These questions are best understood within the political, social, and cultural life of communities within which CDD processes are deeply imbedded.

The Jamaica case study analysed in this article will attempt to provide some answers to these questions, while providing an example of the use of 'participatory econometric' techniques to conduct an ex-post impact evaluation [*Rao, 2002*].[4] This article is organised as follows: Section II will briefly provide some context with an outline of Jamaica's history in relation to CDD. This will be followed by an overview of the qualitative evidence from the five sets of communities. The findings from the qualitative evidence

will then be tested for their generalisability with survey data. Section III will outline the methods used to analyse the survey data and the sampling methodology. Section IV will present the quantitative results. Section V will briefly review the qualitative and quantitative evidence to provide an integrated perspective, and conclude the article by summarising the policy implications of the evidence. We should emphasise here that this article should not be viewed as an evaluation of JSIF in its entirety. As a case study it benefits from our ability to examine five projects in some depth, but it also suffers from using a limited sample, so that it lacks the scope which might give a broad sense of JSIF's full portfolio of projects.

II. THE QUALITATIVE EVIDENCE[5]

To understand how JSIF works, and how it is perceived in Jamaica, it helps to place it within the context of Jamaican political history and culture. Modern Jamaican political history is dominated by two cousins, Norman Manley and Alexander Bustamante. Manley founded the People's National Party (PNP) in 1938, in an organised effort to end British rule. The PNP was closely associated with Bustamante's Industrial Trade Union (BITU). Bustamante broke away from the PNP in 1943 to form the Jamaica Labor Party (JLP) which, along with the PNP, would come to dominate Jamaica in the post-independence years.

The history of CDD in Jamaica is closely tied to Norman Manley and the PNP. The cooperative movement in Jamaica, which is the precursor to what is now called CDD, was pioneered by the Jamaica Welfare Society which Manley founded in 1937, with funds from a settlement over a labour dispute that he negotiated with multinational banana companies [*Keith and Keith, 1992*]. The funds, which were annualised, were to be used 'not for charitable purposes. . .. but for real help in the cultural development of the island and its peasants'. [*Girvan, 1993: 7*].[6] The organisation first focused on building community centres to serve as 'catalysts for rural development' [*Girvan, 1993: 7*]. By 1939 it had expanded its goals to foster 'cooperation and self-help activities among the rural poor'. Over time, the organisation was considered extremely successful and one of Norman Manley's important contributions [*Keith and Keith, 1992*]. The Jamaican cooperative movement withered away in the 1970s and 1980s with the death of some of its leaders, such as Norman Manley and D.T.M. Girvan – whom Manley had appointed as head of the Jamaican Welfare Society in 1939. This paralleled the worldwide trend away from the cooperative movement toward development policies focused more on top-down infrastructure and human capital projects, and the liberalisation of internal markets and trade. By the early 1990s, however, interest in CDD had revived in Latin America as an antidote to the

structural adjustment programmes that characterised the 1980s, with several countries establishing social funds.

In 1996, JSIF was instituted by the PNP government, now led by Percival James Patterson, and is perceived in Jamaica as the successor to the Jamaica Welfare Society. Its methods and objectives closely parallel those of the Welfare Society, and several (now quite elderly) participants in projects instituted by the Welfare Society play a key role in JSIF projects at the community level. JSIF's stated goal is 'improving living standards for the poor and vulnerable'. It has four key objectives:

(1) to establish an efficient, demand driven and complementary mechanism to deliver basic services to the poor;
(2) to mobilise and channel additional resources into the areas of social assistance as well as basic social and economic infrastructure;
(3) to increase the institutional capacity of governmental and non-governmental entities to design, implement, and manage small-scale community-based projects;
(4) to empower communities by seeking to ensure greater levels of community involvement in development programmes and community participation in decisions affecting their lives.

As one of the social funds in the Latin America and Caribbean region, JSIF has been clearly influenced in its methods and practices by experiences with social funds in countries such as Nicaragua, Ecuador and Zambia. It should, however, also be seen within the context of Jamaica's history of the cooperative movement. The writings of D.T.M. Girvan, who led the Jamaica Welfare Society during most of its active years and then advised the cooperative movement in Ecuador and Chile, provide an instructive window into the historical context of CDD processes. One of the key foundations of Girvan's view was to 'work together in groups to do those things which we as individuals cannot do'. An excerpt from a paper he wrote in 1941 [*Girvan, 1993*], 'The Better Community Approach to Community Development', shows how deeply embedded contemporary social fund practice is within the cooperative movement: 'Building a Better Community depends first and foremost on the desire for citizens for self-improvement. This desire may be found in most communities in varying degrees; in all it can be aroused and stimulated'.

JSIF, which has been deeply influenced by these ideals, is an autonomous government agency that reports directly to the Ministry of Finance. It solicits proposals from communities by widely disseminating information via radio and television. NGOs, community-based organisations (CBOs), and central government agencies facilitate the applications by helping key actors

organise the community to decide on and apply for a project. These NGOs, CBOs and key actors within communities often have a past association with the Jamaica Welfare Society and follow similar procedures. The proposal usually includes a social appraisal outlining the problems faced by the community, how these intersect with social and economic constraints within the community, and the role that a sub-project can play in improving living standards. JSIF screens applications on the basis of its target criteria, which mandate a focus on the poorest communities, and then undertakes a series of field visits in order to identify, through research (for example, PRAs, animation, sample surveys), a realistic sense of the needs of the community.

As with other social funds, communities funded by JSIF are usually required to make a contribution to construction costs in either cash or kind. Projects are supposed to be decided in broad consultation with the community and must fall within a menu of projects that JSIF will support. There are, however, notable exceptions to this menu-based restriction, as we demonstrate below. The projects are generally executed by contractors employed by JSIF, and then managed by the appropriate ministry (for example, education, health). It is expected that the community, because of its greater sense of ownership of the project, will participate in its maintenance and management, thus improving project sustainability.

Having seen a bit of the history and background of CDD in Jamaica and having looked at JSIF's guidelines, let us now turn to an examination of how these guidelines work in practice.

The qualitative data are based upon semi-structured in-depth interviews with several key players in five matched pairs of communities, including JSIF project coordinators, community leaders (elected officials, elders, pastors, etc.), and members of the JSIF committee in each community who helped organise and manage the project. The communities were matched on the basis of a poverty score that JSIF had calculated on the basis of census data. From the universe of possible matches on the basis of the poverty score, fieldwork was undertaken to study other, unmeasured, community characteristics in order to improve the quality of the match – these characteristics include the community's geography, occupation structures, public goods (such as churches, youth groups, etc.). Interviews with focus groups within JSIF communities asked them to identify nearby communities that were most like them. Three extended focus-group discussions were conducted in each community with groups of people who were, as far as possible, selected to represent the entire community. Data from these interviews is supplemented with observations from field visits by Ruel Cooke, one of the consultants who supervised the data collection, and Rao, who conducted field visits in six of the ten communities in the sample. The report on Arnett Gardens is also supplemented by a report by Duncan [*2001*], commissioned for this article

and based upon several additional interviews with 'dons',[7] politicians, and other men and women who live in the community. We should note that the focus groups' in-depth interviews, completed in the course of the fieldwork, were not conducted on a random sample. Moreover, despite efforts to avoid the problem, it is possible that members of the community who participated in the focus-group discussions were more likely to have participated actively in the social fund process. This could, potentially, result in biased findings. Therefore, the qualitative findings should not be examined on their own, but in conjunction with the survey results that are based upon a representative random sample. The qualitative information is useful, however, to sketch a narrative of participation and collective action in JSIF and non-JSIF communities. We will outline the key players, the manner in which community mobilisation occurred, and the perceived impact of the project in the community. The non-JSIF community will also be very briefly sketched to provide a sense of the difference between the matched pairs.

Community Pair A: Port Royal and Rennock Lodge

Port Royal is a historic town and was the capital of Jamaica during Spanish rule. It subsequently became a haven for buccaneers. Most of the old Spanish town was submerged after a series of hurricanes and earthquakes in the nineteenth century, and the subterranean site has significant but under-developed potential as a tourist site. It is also a community that has, over the years, through generations of intermarriage, become extremely tight knit, but with clear divisions based upon class, status, religion and political affiliation. The community is dominated by the Port Royal Brotherhood (hereafter Brotherhood), a semi-governmental authority which owns most of the public infrastructure and housing, and which is considered akin to a local planning authority. Interestingly, the Brotherhood was founded by Girvan in 1952 as an arm of the Jamaican Welfare Society, but its foundations in the cooperative movement seem to have evolved into a more political function.

There is a clear split in the community between those loyal to the Brotherhood and those opposed to it. In the last few years an arm of the local citizens' association, functioning as an alternative to the Brotherhood, formed a development group known as the Port Royal Environmental Management Trust (PREMT). This has been spearheading an effort to bring more developmental investment into the town. In particular, PREMT plans to develop the town as a port for cruise ships, on the model of the large tourist ports of Montego Bay and Ocho Rios. This plan has the potential to transform the town into an important tourist site.

PREMT was also responsible for initiating the JSIF proposal. It hired Edu Tech, a consultancy firm, to develop the proposal and submit it to JSIF. The proposal, which was developed with limited community consultation, asked

for a computer centre in the local school. The idea was that this centre would benefit students during school hours, but would also be used to instruct adults. PREMT works independently of, and perhaps even in opposition to, the Brotherhood. In the words of a PREMT leader, 'Us and them (the Brotherhood) don't get along'. This indicates that the social fund application process may be at the centre of the internal politics of the community. This challenges conventional wisdom on the suitability of homogeneous societies for participatory development. Contrary to the predictions of theories of participation, the divisions within this community are not a result of its heterogeneity but a consequence of how tightly bound it is. Everyone seems to be everyone else's kin and, over the years, personal animosities and family conflicts appear to have spilled over into the community's internal decision-making process. It is possible that PREMT's efforts at eliciting JSIF funds are an attempt to rival the Brotherhood's historical association with the Jamaican Welfare Society.

The Port Royal project provided a computer centre for the school. The project was not participatory in the sense that a computer centre was not a priority with most of the members of the community: they would have preferred a project which generated more employment. As described above, PREMT seems to have made the decision almost unilaterally, and the technical orientation of the project seems to have been influenced by the consultants, Edu Tech. PREMT sees the centre as part of an overall development plan for Port Royal and envisages a day when computer-trained members of the community will be able to get jobs at the resorts and other offices that they believe will come with the tourist influx. In this sense, PREMT is acting as a local social planner – and the notion that community input and participation led to the choice of project is clearly not true in this case. Also, it is clear that the 'traditional leadership', that is, the Brotherhood, was bypassed in the JSIF application. This seems inevitable in a community with deep divisions since it would be very difficult for all factions to reach agreement on a project. Respondents in Port Royal, however, claim that other projects in the community, notably one conducted by 'New Horizons', were much more participatory. In JSIF's favour they also say that JSIF, while less participatory, was more transparent in keeping all transactions above board and communicating information about the project clearly to the community.

Note that despite the lack of widespread participation in the choice of project, there seems to be a lot of pride and support for the computer centre within the community. Respondents said that this was the first concrete example of the much-vaunted changes that had been promised for many years by PREMT. There was also a general perception that schoolchildren were benefiting from the centre, and in a visit that we made it was clear that there was excess demand for the use of computers, with children intently working

and trying to maximise their time on them. The success of the project has caused some resentment among adults in the community who believe that they too should be allowed to use the computers under an adult education programme. Adults claimed that, when the project was first proposed, they were told that adults would also be able to benefit from it. The fact that this has not happened has caused some resentment.

The project did seem to have a clear but limited impact on the community's various factions to work together for common goals. This is a deeply fragmented community, but respondents said that they 'managed to work together' even though 'disputes are too deep'. In visiting the community it was clear that those members who were not followers of the Brotherhood were more likely to express enthusiasm about the project and express interest in mobilising more projects in the community. One of the bases for the division was an inherent difference of opinion on whether the community should open up and widely embrace the tourist trade, or whether it should attempt to resist the disruptive changes in social and community life that this would cause. The computer centre had widespread support partly because it represented a positive, modern, change in a manner that did not lead to external encroachment; it thus had support from both the major groups.

It is difficult to find a community that closely matches Port Royal, but Rennock Lodge comes reasonably close in that it is also located on the sea and is an old community with many long-term residents. However, Port Royal's unique history makes it different from every other community in Jamaica, including Rennock Lodge. The latter is also more 'urban' than the former, in the sense that it is much closer to the capital city, Kingston, and has some of the attendant social problems, such as gangs and youth unemployment.

Rennock Lodge is also different in that there seem to be no organisations or institutions providing leadership within it, and no group appears to be making any effort to mobilise resources on behalf of the community. The leadership that exists does not seem to have wide support – respondents described resource allocation within the community as characterised by the 'paternalistic distribution of political patronage'. Most community activities centre on the football (soccer) club and the local Anglican Church. Like Port Royal, the community is socially and politically homogeneous but it does not exhibit Port Royal's deep kin-based divisions.

Community Pair B: Virginia and Downing

The second community we examine is Virginia, where JSIF funded the construction of a basic school (pre-school, catering to ages three to six years). Virginia is a rural community where most residents are either small farmers or workers in local sugarcane fields and coffee plantations. Community life is centred on the local Anglican Church. One of the church elders, Larry Jordan,

was the central player in mobilising the community towards accessing development projects. Mr Jordan is a deeply religious man who, many years ago, was associated with the Jamaica Welfare Society.

Jordan is also the pivotal figure in Virginia's JSIF-assisted basic school project. Virginia had a school whose structure was severely damaged by Hurricane Gilbert in 1988. When Jordan came to hear about JSIF, nine years later, he used the church and its leadership to mobilise the community to apply for funds to renovate the school. The community seems to have readily agreed to this, since the lack of a good school structure was obviously a pressing need. The fact that a good structure once existed but had been damaged, without any real repairs for several years, was a motivating factor. The project appears to have been thoroughly cooperative and participatory. The community provided labour services and was given training to help with construction skills and management.

Teenagers and men and women in their twenties do, however, seem disengaged from these processes. They express resentment against the church and its central role in community life. Some wish to have a 'youth centre' that they would like to mobilise JSIF funds towards. Some of the resentment against the JSIF school project is also a level of unhappiness over the fact that JSIF changed the management of the school, replacing an old, revered school principal with a new man whom most in the community do not seem to like. This suggested that the greater sense of ownership that participation engenders may also lead to a greater desire to control the project after it is created, and to acquire a greater say in its management. It is unclear that the same level of resentment would have been expressed with an old-style development project.

Virginia has been matched with Downing – a community which is about a 20-minute drive away from Virginia. It is similar in its demographic characteristics and its church-centred social life. Downing has of course its own history in relation to JSIF. It also has a school, which is in reasonably good shape, but which suffers from the constant vandalism of 'disaffected youth'. Teenagers tend to congregate in its grounds, to play loud music and games, and to harass students and teachers, sometimes throwing rocks at windows. The teachers here expressed their fear of crime and violence because of all this, but we were not able to detect any actual incidents of crime or violence around the premises of the school. Because of the vandalism, residents of Downing applied to JSIF for funds to build a gated fence around the school. JSIF rejected the proposal for reasons that are unclear.

Community Pair C: New Valley/Orange–Shadow/California

JSIF funded a road that connected the communities of New Valley and Orange to a highway. Once again this project demonstrates the importance of

the church in rural Jamaica, and its important role in CDD. The project was initiated by the pastor, Rev. Williams of New Valley, who read about JSIF in the newspaper and mobilised church and community leaders to harness community support to apply for funds. Both communities were involved in writing the application, and the project has benefited both – though arguably it has benefited New Valley more than Orange.

The 'pastor was the leader' here. It was initially difficult to mobilise the community but Rev. Williams worked hard to get the process moving. Ultimately, 'no (monetary) contribution was required in the project so everyone participated' and voluntarily provided services, such as free labour and food. Despite the project's obvious benefits, residents of New Valley expressed some dissatisfaction with JSIF, saying that the contractors did 'shoddy work' and that employment on the project was not fairly distributed. On the choice of contractor they said, 'because we are beggars we have to accept what JSIF gives us'. The community was often consulted, with several meetings held during the initial stages. This generated complaints of 'too many meetings'. But there was no consultation on the choice of contractor. Some resentment was also directed at Rev. Williams who, according to a focus group, 'was thinking of his own convenience' by making sure that the road was extended till it 'ended at the church'. Once again we heard reports that youth were disaffected, and did not participate in community activities.

However, the project has had a 'tremendously positive' impact on the life of the community. The road is a 'lifeline' that allows residents to take their produce to the market, and access taxis as well as other transport connecting them to the main arteries. It seems obvious that the road has had a transforming effect on the community's economic and social life. Residents told us that participating in the project developed a sense of 'ecumenism' in the community. It energised various local community associations lying dormant for several years. The community is enthused enough to apply for more funds to further extend the road. They also wish to look for funds for a school or a clinic.

Shadow/California is the matching community for New Valley/Orange. It is located in the same county as New Valley/Orange and has similar problems in that it suffers from the lack of a road: this cuts it off from the main Jamaican highways. This then leads to several problems – high prices for water, lack of access to schools, and difficulty transporting cash crops. The community seems to have a sense that it is overlooked by its political representatives; a focus group discussion described this as a 'rejected community'.

Yet the community, also deeply religious and centred on the church, has a high degree of social cohesion and is eager to participate in collective action for the common good. A focus group discussion on their work toward

maintaining the unpaved road that now exists reveals this succinctly, 'We work together for the good maintenance of the road because all of us need it. We filled it with cement and other materials. We worked on it by ourselves'. 'We had a benefit from the experience. We learned to work together'. In fact, we recently received reports that the community had organised itself into protesting the lack of funds for a road by blocking one of Jamaica's main highways, thus drawing attention to their plight. While not everyone would see this is as a constructive activity, it does demonstrate a great deal of capacity for collective action.

Community Pair D: Arnett Gardens–Union Gardens[8]

Arnett Gardens and Union Gardens are located in inner-city Kingston, Jamaica's capital city (also its largest, with almost half the country's population). Arnett Gardens, where the JSIF project is located, is known as a 'garrison community'. These are poor neighbourhoods in Kingston that were founded and controlled by the PNP and the JLP. Arnett Gardens is a stronghold of the PNP. In order to understand the role of the JSIF project in these communities, it will help to briefly recount the history of violence and political conflict in inner-city Kingston.

Toward the end of the 1960s the first garrison community, Tivoli Gardens, was established by the JLP as part of what was called a 'slum clearance project'. Arnett Gardens was established in 1972–74 by the PNP to counter the influence of Tivoli Gardens. Partly as a result of political mobilisation within Tivoli Gardens and Arnett Gardens, the 1970s saw a sharp increase in politically driven violence which prompted the then PNP prime minister, Michael Manley, to declare a 'State of Emergency' in 1976. In 1978 Bob Marley, the reggae icon, attempted to bring the political parties together with the One Love Peace Concert, where Edward Seaga (the JLP leader) and Manley went on-stage with Marley and held hands together symbolically to mark a new era.

The One Love concert represents an important marker in Jamaican history, but it was not associated with a reduction in political violence, which in fact peaked in the early 1980s. As the 1980s progressed, the garrison communities became central locations for the drug trade, primarily as a conduit for transporting marijuana and cocaine to the United States. Thus, the drug economy supplanted politics as the driving force behind the violence, and rival gangs, organised around the same boundaries as the garrisons, competed over the trade. By 1996–97, this violence had reached its highest point in Jamaican history, with homicides showing a 33 per cent increase between 1995 and 1997.

In 1996, a proposal was floated to reconstruct the Kingston Public Hospital, which is located close to the garrison communities and services

people from inner-city Kingston. To facilitate the construction of the hospital, two of the most powerful dons in Jamaica, Dudus (JLP) and Zekes (PNP), orchestrated a peace agreement in 1996. The agreement is better characterised as a strategic alliance which carefully demarcates areas of control. Preliminary fieldwork seems to suggests that Zekes was allowed to control the areas bordering greater Kingston – and thus access to jobs and other economic opportunities – while Dudus was granted control over the wharfs – and therefore to the drug and gun trade [*Duncan, 2001*]. The JSIF-sponsored renovation of the Tony Spaulding Stadium in Arnett Gardens should be viewed within this context.

The JSIF effort began in 1996 when it commissioned a study by a team of anthropologists to understand how public assistance could help alleviate the violence [*Moser and Holland, 1997*]. On the basis of several in-depth interviews, PRA exercises, and focus group discussions, the anthropologists attempted to identify the complex socio-cultural, political, and economic bases of the violence. Underlying all these factors, they said, were two key causes – the lack of jobs and the lack of cooperation and communication across communities. They therefore suggested that JSIF assist in 'rehabilitating and equipping integrated community spaces such as sports facilities, teen centres and training facilities' as a priority, claiming that this would provide 'a modest entry point to break contextually specific cycles of poverty and violence…'. Given that JSIF typically sponsors projects related to schools, health clinics, roads, and water, constructing a sports facility was a radical departure from practice. Taking account of Moser and Holland's recommendations, Vision Development – a local NGO – applied to JSIF for funds to assist the rehabilitation of the Tony Spaulding Stadium, which was an existing facility used primarily as a football field for the area teams. JSIF funded the construction of bleachers, and the renovation of locker rooms and training facilities. The goal was to make the complex a centre of inter-community sports activity.

There is little evidence that this was done in a participatory manner. Unlike Virginia or New Valley, there was almost no direct community participation, aside from the social analysis, or community contribution, and almost all the costs of planning and construction were borne by JSIF. There was a clear lack of information about the JSIF process in Arnett Gardens, and in fact almost no one we spoke to was aware that the project was sponsored by JSIF. We were told that there was a lot of support for the project, about which the 'community got together as a family', but 'nobody from the community worked on the project'. There was some resentment expressed about this – a belief that the work was done by workers from outside despite it being an obvious source of employment in a community that desperately needed jobs. All of this is clear evidence that JSIF had here essentially given up following

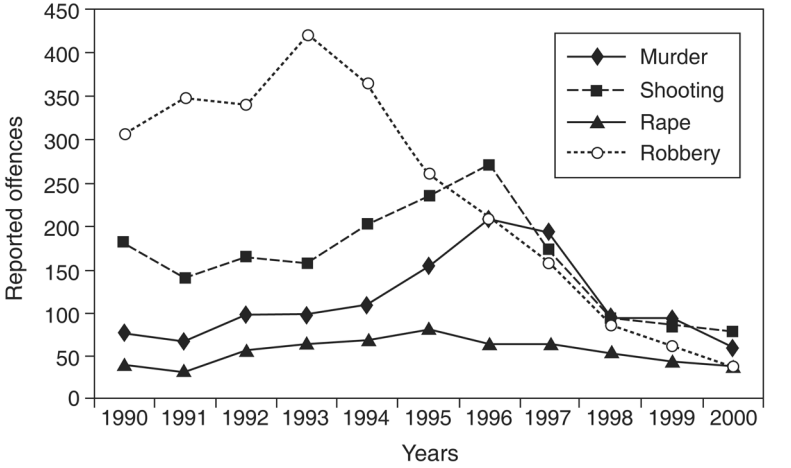
its participation guidelines. This does not mean that JSIF made the wrong decision. Given the nature of the project and what it was trying to accomplish, one can imagine that it would have been particularly difficult to get the community to make contributions.

When this fieldwork was conducted in March 2000, the sense we got was that the project had accomplished wonders. A focus group said, 'the complex is a showpiece and offers a fantastic view of the community. It is a sign of progress as it adds to the overall development of the community and removes some of the stigma attached to it'. One of us spent a day going from house to house asking questions about people's perceptions of the project, and without exception – and without prompting – the fieldworker was told that there was a huge drop in violence, and that residents directly attributed to the new stadium. 'The kids play football instead of killing each other'. 'If there are more sporting activities the youths will have less time to think about guns'. While Arnett Gardens, in March 2000, was still not a neighbourhood within which residents of Kingston felt safe to roam, it no longer seemed like the war zone it used to be. Elderly men and women sat on their porches or gardens, children played cricket or soccer on the street. This was in contrast with another nearby area, a few miles away, where one felt a clear sense of danger. Young men were roaming the streets with unsheathed knives stuck in their belts, guns carried freely. Outsiders were stared at and treated with suspicion.

Figure 1, which presents time series data on crime from Western Kingston, where the oldest and best established garrison communities are located, provides dramatic evidence of the decline in crime and violence. All types of crime have shown a decline here since 1996. This was prior to the JSIF intervention. Note, however, that after 1997 crime and violence declined at a steeper rate, suggesting that JSIF may have provided some additional impetus to the process. Figure 2 provides evidence to show that the decline in violence in Western Jamaica is in sharp contrast to the rest of Jamaica, where murder rates have remained relatively stable. Nevertheless, it is important not to attribute all of the decline in violence to the Tony Spaulding renovation, and to see it as part of a concerted effort to reduce violence in the garrison communities.

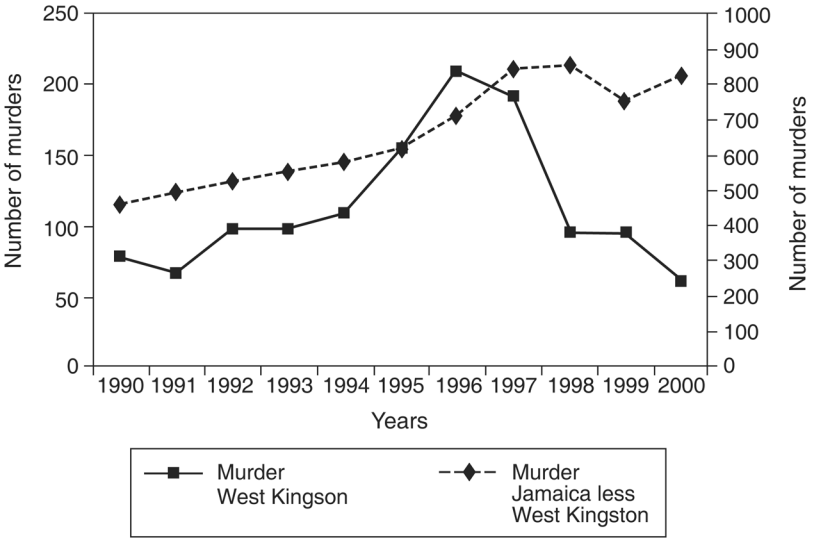
Arnett Gardens remains one of the poorest neighbourhoods in Kingston. A focus group discussion revealed, for instance, that 'We are saddened by the fact that the community is mostly brought together by death, along with dances and sporting activities'. Teenage pregnancy, unemployment, and youth discontent remain serious problems. It is still difficult to get the community to work together for the common good and political parties continue to define the neighbourhoods. A community leader told us, 'We need a community system, not a party system'. 'Leadership is dispersed

FIGURE 1
MAJOR CRIMES COMMITTED IN THE WESTERN DIVISION 1990–2000



Source: Duncan [*2001*] based upon data from the Jamaica Constabulary Force, 'Citizens Charter', January 2001.

FIGURE 2



Source: Duncan [*2001*] based upon data from the Jamaica Constabulary Force, 'Citizens Charter', January 2001.

between . . . (various leaders). Some take care of security, and others take care of neighbourhood needs'.

Many of our findings from March 2000 need to be rethought in the wake of the events of July 2001, when intense violence flared up again in the garrison communities. The annual murder rate is likely to soar again to the levels of the 1990s indicating that the abatement in violence was more a lull than a cessation. As Jamaica drew closer to a general election in 2002,[9] traditional politically driven tensions once again caused conflict. Therefore, the possible impact that the Tony Spaulding stadium project had on the community does not appear to have been sustained over the long term. Furthermore, to the extent that the peace process caused a lull in the violence, it does not seem to have been a direct result of the stadium renovation as much as part of a broad peace initiative instituted between the two main warring factions in Kingston. Yet there is also no question that the stadium has had a large and positive impact on the community, in the sense that it is a symbol or pride and provides a valuable public service.

The matching community, Union Gardens, is similar to Arnett Gardens in its occupational structure and levels of poverty. Patterns of violence in Union Gardens mirror those in Arnett Gardens, indicating the lack of a causal link between the Tony Spaulding stadium initiative and the cessation of violence in the two communities. However, we were told in 2000 that Union Gardens is 'as united as can be expected'. It has a citizens' association where most community-wide decisions are made. A leader told us that it is 'the only community in the western belt (of Kingston) not warring against a neighbouring one'. He also told us that 'Union Gardens is rejected by all'. Thus, there is a clear sense within the community that it has been abandoned, perhaps amplified by the high profile interventions that people here see in places like Arnett Gardens.

Community Pair E: Rock Creek/Creighton

Rock Creek is located at the west end of Jamaica, close to the resort town of Negril, and many of its residents commute to Negril to work in the tourist industry. Like Virginia, Rock Creek had a basic school that was housed in a church building with a roof damaged by a hurricane which, in 1997, was destroyed by a fire. The fire motivated the community to seek JSIF funds to renovate the school building. The school principal instigated efforts to start the renovation under the auspices of the sports club, an organisation largely consisting of younger members of the community. The sports club leadership then attempted to widen the base of support in the community, enlisting the help of the church and by forming a Citizens Association with a group of interested parents. The sports club leader says that the process of galvanising the community around the project was not easy, and 'to ensure broad support

for participation the community had to be educated about the project'. 'It was a difficult process, but through public education (the sports club) was able to get the community totally involved'. Ultimately, according to the sports club leader, 'the church was not as actively involved as it was hoped'.

The citizens' association, on the other hand, raised a substantial amount of money from the community, even prior to the JSIF intervention. Once JSIF approved the project, it helped organised work-days, dug the foundation, and built a driveway and parking area. It also played a key role in assisting the contractor to acquire building materials on credit from local hardware merchants. The community was, therefore, very actively involved in the project in all its phases. Its contribution far exceeded the minimum of 5 per cent required by JSIF. This allowed enough funds to be left over for a canteen to be constructed entirely out of community funds, after the school was constructed.

The impact of the project on the community has been favourable, though the prognosis is mixed. Focus group discussions seem to echo the rhetoric of participation. They say they have learned the 'idea of a community learning to work together for the good of the entire community'. They add that the project motivated 'the community to work together for the good of everyone', and that 'team work is necessary to accomplish goals'. The local councilor tells us that 'successful conclusion of the project served to strengthen the sense of community'. However, the councilor also says that it has led to 'rivalries' between the sports club, the church and the PTA. Furthermore, he is 'not sure who is responsible for ongoing maintenance and operation'. The principal does not know to whom he should turn for this, and there is no school board in place; and the project committee's present role needs to be clarified. This leads to questions about how sustainable the project is. The sports club leader reiterates this point, saying, 'Currently there is confusion about who is responsible for the sustainability of the school'. There is a 'need for more community effort now that the project is completed to ensure that the building and grounds are properly maintained. Support can only be gotten if the community sees the benefits'.

From all of this one gets the sense that the community was very well organised in obtaining funds for the project. There was a commonly felt need when the school was destroyed. One also gets the sense that the traditional leadership in the community did not make enough effort to restore the school, and this created space for the sports club to exercise leadership and mobilise the community. The JSIF process was clearly well suited to this purpose, and Rock Creek, as a motivated, well-organised community, obtained the funds easily. However, with the project completed, there was clearly some confusion as to who was responsible for the continued operation and maintenance of the facilities. The normal procedure is for the school board to

take over these functions, but no such body was formed. Consequently, there was some tension between the church – representing the traditional authority figures in the community – and the sports club, which, despite its central role in getting the project started, may be losing power in the eyes of the community in relation to the church.

The matching community for Rock Creek is Creighton, which is located a few miles away and has similar socio-economic characteristics. The community is said to be fairly united, with two very active youth clubs. These have recently helped form a District Development Committee consisting of participants from the youth clubs and other individuals active in community activities. The church, however, is not involved in these activities and does not seem to play an active role in the development of the village. Focus group discussions explained that while the 'community is minimally involved, those that attend meetings are mostly young people because they have time on their hands'. Some also felt that the 'community not very united, politics divide the community during elections'. Others believed that, despite strong political divisions, the village was relatively harmonious.

Some of this lack of collective action capacity has affected the community's ability to apply for JSIF funds. We were told that the 'community did not apply for JSIF because there was no consensus on which project was a priority…'. On the other hand community members have worked together on a road construction project and are presently providing voluntary labour excavating land from the hillside to build a playing field.

Perhaps the most important distinguishing factor between Rock Creek and Creighton is that the latter does not have a single important problem, such as a school destroyed by fire, which might unite the community around a cause. In Rock Creek the lack of a school motivated young people in the sports club to galvanise the community to organise itself and apply for JSIF funds. Creighton, on the other hand, suffers from several problems: the lack of adequate water, poor roads, the lack of a school building, and there is no clear sense of which of these is a priority. The multiple problems serve to divide the community rather than unite it.

Summarising the Qualitative Evidence

In interpreting the qualitative evidence, it helps to reiterate the point that the information is based upon interviews with a few key informants in each community, and on focus group discussions. Since the focus groups were not selected on the basis of a probability sample, it is possible that the views they present are not representative. The qualitative evidence therefore should be evaluated in conjunction with the quantitative evidence, which is based on a random sample, to get a comprehensive sense of the impact of the project on the community.

The qualitative data indicate that the social fund had, overall, a positive impact on each of the five communities in our sample. JSIF generally follows a procedure where careful social analysis precedes the design of a project. While the community is generally well informed about the project, participation for the sake of participation does not seem to be the highest priority. In the case of Arnett Gardens and Port Royal, for instance, levels of participation were very low. Community members were given the opportunity to attend meetings within which they were given information about the project, but this does not mean that they had a voice in the choice of project. The focus group interviews seem to indicate that many would have preferred a different type of project – usually one that generated private goods, such as more jobs.

However, Jamaica's political culture, and the many divisions that exist within its communities, may make the participatory process difficult to implement in a manner that is truly inclusive. Typically, a leader within the community receives support from one faction within the community and not from the others. This creates a situation where the project tends to incorporate the interests of one sub-group of the population while ignoring the others. This, in turn, has the potential both to generate a project that benefits many members of the community, and simultaneously reinforce divisions within it, as we saw in Port Royal and Virginia. The question that should be asked is whether participation within a heterogeneous, divided, community is possible or even desirable. A truly participatory process was perhaps impossible in a community such as Arnett Gardens. Participation in this case was substituted by careful social analysis that helped inform the development of a project which, at least for a while, had a positive effect on the community. This suggests that what really seems to matter is a deep knowledge of the social, political, and economic forces underlying a community – whether this comes from 'participation' or social analysis.

Divided communities also possess the preconditions for capture. However, despite the lack of full participation, what we see in each of these cases is not capture, but rather what one World Bank official[10] calls 'benevolent capture'. This describes a situation where influential individuals within a community push through a project and dominate its progress, but do this with communitarian motives which have a generally positive impact. The point of CDD is to involve the community in a development intervention so as to create a better match between the community's needs and the project it obtains. How this is achieved is perhaps of secondary importance. It helps to have a wide menu from which to choose. This, to its credit, JSIF seems to allow for. The Tony Spaulding stadium, the Virginia basic school, and the New Valley road project are cases in point. Participation, as in the case of Virginia and New Valley (by having communities send applications which

are then vetted and checked) is one way to achieve this goal. But, as the Tony Spaulding stadium demonstrates, this may not always make sense in communities that are more difficult to work in because of severe social disruption.

To summarise, we have learned from the qualitative analysis that the CDD process is often dominated by a sub-set of the population and is frequently mobilised by a local leader who may or may not be a politician. The process of project selection is not generally participatory, but is driven by the opinions of this small motivated group. Once construction commences, however, we see that this group is often able to motivate a larger group in the community to participate by making contributions to the project. Once the facility has been completed, it is generally viewed positively and seen as something that belongs to the community, as something constructed with the community's active support and participation. Given that the process of project selection is dominated by a small group, it would be interesting to see if the participation was selective and exclusionary. Note that this general pattern does not apply to Arnett Gardens, which is essentially an 'informed' top-down project within which careful social analysis preceded the design and implementation of the facility. Arnett Gardens also reminds us that the positive social externalities that arise from a community-based intervention – however well designed – may be difficult to sustain in the long term in communities that are beset by deep divisions.

We will now turn to the quantitative data to explore these issues in greater detail. We will examine the determinants of participation, and see the extent to which community interactions and the capacity for collective action have been affected by the social fund. We will therefore understand the extent to which our qualitative findings can be generalised to the population. We will also attempt to examine the causal impact of the social fund process on the community's capacity for collective action and participation.

III. QUANTITATIVE DATA AND METHODOLOGY

Each of the five pairs of communities described above has been matched on the basis of observable characteristics, such as the availability of public services and levels of poverty, but the field visits also helped match them on 'unobservables',[11] such as their geography, political culture, and social structure. Within each community, 50 households were selected at random to be administered the questionnaire. Within each household an attempt was made to interview two adults: the head of the household and one other randomly chosen member not of the same sex as the household head. In practice, Jamaica's family structure, which tends to be have a large

proportion of single-parent households, made it difficult to locate the second adult in many households. Therefore we have a sample of about 500 households with 684 individuals, spread evenly between social fund and non-social fund communities.

The questionnaires that were administered to these households covered issues that ranged from socio-economic characteristics, experience with community-based activities and participation in projects prior to the introduction of the social fund, sources of prior information, networks, perceptions of problems in the community, information and knowledge about the social fund, level of participation in community and social activities, and a series of questions that asked respondents to evaluate changes from five years earlier to the present on a series of outcome variables (the social fund started operating in these communities in 1997). Some modules in the questionnaire were informed by the fieldwork, with questions constructed to capture contextual aspects of community development in Jamaica. One aim of this was to allow the incorporation of several questions that seemed to have influenced the selection of a community by JSIF. The questionnaires for the social fund and non-social fund communities were similar, the only difference being that social fund communities were asked an additional set of questions that were unique to the social fund process. The analysis will focus on two sets of dependent variables: one set will analyse targeting and participation focusing on data from the social fund communities; the second set will compare social fund to non-social fund communities in order to tease out the impact of the social fund on changes in various indicators of the capacity for collective action.

Our data suffer from two important problems, common to many impact evaluations, that affect our ability to determine the causal impact of the social fund programme within the communities in our case study:

(a) since access to the social fund was not randomly assigned, we are not able to observe what would have happened to a community had it not received assistance from JSIF;
(b) we do not have direct observations on the communities prior to the introduction of the social fund.

To elaborate on these concerns and to outline how we attempt to find solutions to them, we will briefly sketch the elements of the impact evaluation problem using Ravallion's [*1999*] notation:

Let I_i be the impact of the social fund on individual i. Then, $I_i = Y_{1i} - Y_{0i} \mid P_i = 1$. Where Y_{1i} is the outcome of interest for individual i when that individual belongs to a community that received treatment 1. Y_{0i} is the outcome when the *same* individual belongs to a community that did not

receive the treatment. This is conditional on $P_i = 1$, that is, the probability that the individual belongs to a community that received the treatment is 1. In other words, the true impact of the social fund is measured by looking at the difference between the outcome with the social fund intervention and the outcome without the social fund intervention, for the same individual in the same community. Obviously, in practice, this is never observable. That is, we can never observe Y_{0i} when $P_i = 1$; the outcome of what would have happened had the treatment not been received in a community that received the treatment. This is the crux of the problem in programme evaluation.

The ideal solution to this problem is to do a random assignment which, on average, will give us the correct answer. If we define the expected (average) value of the impact as:

$$I = E(Y_{li} - Y_{0i}|P_i = 1) = E(Y_{li}|P_i = 1) - E(Y_{0i}|P_i = 1)$$

Then, if the social fund was assigned randomly to a group of communities which constituted the treatment group, while the rest were left as controls, so long as the sample was randomly drawn we can assume $E(Y_{0i} \mid P_i = 1) = E(Y_{0i} \mid P_i = 0)$. The expected value of the outcome without a social fund in the treatment group would be the same as the expected value of the outcome without a social fund in the control group. We would then get an unbiased estimate of the average treatment effect. However, we know that social funds were not randomly assigned. In fact, JSIF explicitly states that they have a pro-poor bias. One way around this is to select matched pairs of communities which are very similar so that we can assume $E(Y_{0i} \mid P_i = 1) = E(Y_{0i} \mid P_i = 0)$ with some degree of comfort.

This, however, is imperfect. For example, looking at the qualitative work, we see that while Port Royal is similar to its matched community Rennock Lodge, Rennock Lodge does not share Port Royal's unique history and social structure. This problem has a solution if we assume that the differences between the matched pairs are time invariant. In other words, we can assume that the kinds of things that make Rennock Lodge different from Port Royal do not change over time – a safe assumption, since much of what makes them different is related to their uniqueness as communities, which is unlikely to change rapidly over time. If the source of bias stays the same over time, and if we have observations on these communities before and after the introduction of the social fund in the experimental community, we can take the difference between two time periods in each community to eliminate time-invariant sources of bias. We can then take another difference across the experimental and control matched pairs to get a better estimate of the causal impact of the social fund. This gives us the difference in difference estimate:

$$\hat{I} = \mathrm{E}(Y_{1\mathrm{it}} - Y_{1it-1}|P_i = 1) - \mathrm{E}(Y_{0it} - Y_{0it-1}|P_i = 0) = \mathrm{E}(\Delta Y_i|P_i = 1) - \mathrm{E}(\Delta Y_i|P_i = 0)$$

In our data we do not have direct observations of these communities before the introduction of JSIF, but we asked respondents a series of retrospective questions about life five years before March 2000, which takes us to the year before JSIF was introduced, in order to get a sense of initial conditions. We also asked them directly to assess how their lives have changed for a series of outcome variables from five years earlier to the present, and therefore provide a direct measure of ΔY_i in both pairs of communities. This is an imperfect solution, since memories are sometimes poor, but in the absence of panel data it provides one way of deriving estimates of change.

This method, however, does not allow us to assess how different individuals are differentially affected by the change, and it may be interesting to examine how particular characteristics of individuals affect changes in the impact of the social fund. For instance, we may be interested in finding out if the social fund process has a greater impact on better educated people. In order to get a better sense of how the programme effects varied across individuals, we will match them on 'observables', that is, employ propensity score matching methods. The idea behind the propensity score [*Rubin, 1973; Rosenbaum and Rubin ,1983*] is to create an index that summarises the exogenous observable attributes of an individual. When this index is generated for the individuals in both the experimental and control groups, individuals in the experimental group can be paired with their statistical clones in the control group. If the observational and control samples are very different, the propensity score will also identify individuals who have no corresponding match – thus, they will lie outside the 'common support' of the propensity score in the experimental and control samples. These individuals outside the common support are dropped to reduce bias in the estimate of the impact. To summarise, we will calculate a propensity score on the basis of the following equation:

$$P_i = f(\mathbf{H}_i, \mathbf{X}_i, C_i) \tag{1}$$

Where $\mathrm{P_i}$ is the probability that the individual belongs to a social fund community, **H** is a vector of exogenous household characteristics, **X** is a vector of exogenous measures of behaviour of the household related to participation *prior* to the introduction of the social fund, and C is a dummy variable for each pair of communities to control for regional differences. The vector **H** includes the sex of the respondent, his/her age and its square, whether the respondent is less than 25 years old, the household size, the

number of earning members in the family, the highest level of education in the family, the number of children of schoolgoing age, whether the individual is Rastafarian, whether s/he is Protestant, whether s/he is a permanent resident of the community who has not migrated from elsewhere, whether the respondent is married or unemployed, and the household's economic status. Economic status is a principal component measure of a set of asset based variables using the method suggested by Filmer and Pritchett [*2000*], since the surveys did not ask questions on income or expenditure.

In the vector **X** we include several variables: the level of participation in community activities prior to JSIF, their primary method of socialisation (whether they meet other members of the community primarily in community activities such as PTA meetings, or whether they meet them through traditional activities such as weddings and funerals), the number of influential people they knew within the community prior to JSIF, and the number of influential people they knew outside the community prior to JSIF. *C* includes dummy variables for each pair of communities analysed in the qualitative section. A potential problem with propensity score methods is a bias that may occur if the selection equation has a substantial number of 'unobservables' variables correlated with the selection process. To minimise the impact of this a special effort was made to reduce the number of unobservables, both in the way the communities were matched and by using insights from the qualitative work to add questions to the questionnaire – such as the availability of social networks, Rastafarian affiliation, etc. – that could explain selection into JSIF.

Equation (1) is estimated with a logistic regression, and the predicted probability $\hat{P}_i$ calculated from the estimated logit regression is the propensity score. As explained above, it can be viewed as a summary measure of all the exogenous variables in equation (1). As we will see below, because the pairs of communities have been matched closely during the sampling process, the overlap between observations in the social fund and non-social fund samples is quite large. This means that only a small percentage needs to be trimmed. However, dropping these extreme observations substantially reduces the bias in the estimated impact of the programme [*Heckman et al., 1998*].

We will analyse the impact of the intervention using nearest neighbour matching. Each individual in the social fund sample will be matched on the basis of the propensity score with her 'nearest neighbour' in the non-social fund sample. Since the sample size is rather small, in practice it is difficult to find an exact match, and we therefore take the average of the five nearest neighbours from the control sample. The difference between the observation in the treatment sample and its matched nearest neighbour in the control sample provides an estimate of I_i. The average of all the I_i provides an estimate of I the average treatment effect. We will also examine the impact of

the social fund on intervening variables by calculating the nearest neighbour I for sub-groups of the population divided by education, age, economic status, and gender. We calculate bootstrapped standard errors for the nearest neighbour estimates to test whether the estimates of I are significantly different from zero. The nearest neighbour method provides the closest approximation to results from a random assignment [*Dehejia and Wahaba, 1998*] and, unlike regression based methods, does not make any assumptions about the parametric relationship between the intervention and the outcome variables. In our view, it is therefore the preferred method to assess the impact of the social fund. Thus we combine two methods – matched sampling of communities with (retrospective) difference in difference estimates of 'nearest neighbour' households in the treatment and control communities using propensity-score matching to provide estimates of the impact of the social fund. This, in combination with the qualitative evidence, will provide an in-depth and comprehensive examination of the relationship between social funds and outcomes of interest.

The outcome variables we examine include: have respondents heard of JSIF; compared to five years earlier, whether it is easier now to work with groups and associations of people outside the immediate household; compared to five earlier, has there been a change in the level of trust in the community; compared to five years earlier, is it more easy to get the entire community to agree on a decision; five years earlier, were you more or less likely to be fined or penalised for not participating in community activities; compared to five years earlier, is the government more responsive to your needs; compared to five years earlier, is the local leadership more responsive to your needs; compared to five years earlier, are community decisions made more or less often by community leaders; and compared to five years earlier, are community decisions made more or less often by community meetings with a vote.

In addition to measuring the impact of the social fund, we are also interested in studying the determinants of participation within the social fund process. To examine this, we focus on all the households in five communities that received the social-fund, without trimming. We will first begin by examining how close the project that each community obtained was to the expressed preferences of members – which we will call 'preference targeting'. Each individual in the social fund sample was asked to rank order the three most important problems that they faced *prior* to the introduction of the project. The question was relatively open-ended, allowing for a whole range of responses. These responses were then coded into categories that could be associated with interventions – such as education, roads, income generation, etc. We then focus on the problem that was listed as the most important by the respondents and rank order the categories by the

number of 'votes' they receive.[12] The sample is then split into high and low levels of education, economic status, age, and gender, to see if the 'votes' change for different types of individuals.

Finally, we run reduced form regressions on a variety of indicators of participation in the social fund process with the same set of exogenous variables as in equation (1). The indicators of participation we use include: whether they participated in any meetings during the course of the construction, and whether the JSIF project addressed the problem that was ranked as the most important by the respondent.

IV. QUANTITATIVE RESULTS

Table 1 provides summary statistics for the exogenous variables for the social fund and non-social fund communities. We see that the two samples are quite similar – none of the variables in the samples significantly differ from each other – indicating that the quality of the match in the pairs of communities is good. The average age of a respondent is 45.3 (46.8 in the non-social fund sample). The mean highest level of education in a household is 10.14 years (9.97 in the non-social fund sample). Interestingly, a little more than 50 per cent of the sample consists of female-headed households, which is consistent with demographic patterns in Jamaica. Prior to the inception of the social fund, participation in development projects was slightly higher in non-social fund communities, where the average household had participated in 1.87 projects prior to JSIF, compared to 1.76 projects in JSIF communities. Non-JSIF communities had more frequent contact with their local leaders than JSIF communities. On average, JSIF communities are acquainted with 1.42 influential people within the community, while this average is 1.06 for control communities. Non-JSIF communities, on average, knew 1.35 influential people outside their community, compared to 1.21 for JSIF communities.[13]

We will first analyse the complete JSIF community sample to investigate how well targeted the projects were, and to examine the determinants of participation in the JSIF process. One of the important potential benefits of CDD is its demand–drivenness; the perception is that, by allowing a community to be in the driver's seat, there will be a good match between what the community needs and the project that it obtains. To examine how closely the project matched the expressed preferences of the community, we examine the results of the 'preference targeting' indicator in Table 2.[14] The JSIF process resulted in a relatively imperfect match between the community's expressed needs and the project that was obtained – the category of needs that match with the project that was obtained are in bold. Two communities, Arnett Gardens and New Valley/Orange, received their

TABLE 1
SUMMARY STATISTICS BEFORE TRIMMING

	JSIF community			Non-JSIF community		
	Obs.	Mean	St. Dev	Obs.	Mean	St. Dev
Male respondent	328	0.48	0.50	350	0.47	0.50
Age respondent	314	45.25	17.05	243	46.80	16.78
Male respondent under 25 years	337	0.05	0.21	350	0.06	0.24
Number household earners	337	1.40	0.75	350	1.49	0.68
Household size	336	3.50	1.95	350	4.32	2.36
Highest level education in HH	332	10.14	3.18	343	9.97	2.83
Number children schooling age	337	0.90	1.22	350	1.21	1.33
Female headed household	337	0.51	0.50	350	0.53	0.50
Protestant	337	0.79	0.41	350	0.83	0.37
Rastafari	337	0.07	0.25	350	0.04	0.19
Permanent resident	337	0.20	0.40	350	0.34	0.47
Economic status	337	0.13	1.84	350	− 0.17	2.08
Level of participation before JSIF	333	1.76	0.74	347	1.87	0.76
Married	337	0.32	0.47	350	0.33	0.47
Socialise in community activities	316	0.50	0.50	333	0.47	0.50
Socialise in traditional activities	316	0.37	0.48	333	0.42	0.49
No socialising	316	0.01	0.08	333	0.02	0.12
Number of VIP within community	337	1.42	1.24	350	1.06	1.02
Number of VIP outside community	337	1.20	1.35	350	1.35	1.36
Summary statistics after trimming						
Male respondent	291	0.48	0.50	320	0.49	0.50
Age respondent	283	45.66	17.39	228	46.68	16.98
Male respondent under 25 years	299	0.05	0.22	320	0.07	0.25
Number household earners	299	1.43	0.74	320	1.50	0.66
Household size	299	3.58	1.96	320	4.34	2.41

(*continued*)

TABLE 1 (*cont'd*)

	JSIF community			Non-JSIF community		
	Obs.	Mean	St. Dev	Obs.	Mean	St. Dev
Highest level education in HH	299	10.10	3.19	320	9.92	2.84
Number children schooling age	299	0.92	1.22	320	1.18	1.32
Female headed household	299	0.53	0.50	320	0.52	0.50
Protestant	299	0.81	0.40	320	0.84	0.37
Rastafari	299	0.07	0.26	320	0.04	0.20
Permanent resident	299	0.21	0.41	320	0.36	0.48
Economic status	299	0.11	1.83	320	− 0.25	2.10
Level of participation before JSIF	295	1.78	0.74	318	1.91	0.77
Married	299	0.33	0.47	320	0.34	0.47
Socialise in community activities	292	0.49	0.50	314	0.45	0.50
Socialise in traditional activities	292	0.38	0.49	314	0.44	0.50
No socialising	292	0.00	0.06	314	0.02	0.13
Number of VIP within community	299	1.37	1.18	320	1.11	1.04
Number of VIP outside community	299	1.22	1.35	320	1.40	1.37

TABLE 2
PRIORITY/PROJECT

Priority/Project (Project obtained)	(a) Port Royal (Education)		(b) Virginia (Education)		(c) Rock Creek (Education)		(d) Arnette Gardens (Violence)		(e) New Valley / Orange (Road)	
	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%
Income generation	1	22	4	16	3	14	2	16	3	8
Violence	2	21	NA	–	NA	–	**1**	**58**	5	3
Health	3	16	NA	–	NA	–	NA	–	NA	–
Education	**6**	**2**	**4**	**4**	**5**	**2**	6	3	–	–
Lack of water for cattle/crops	4	9	NA	–	2	18	NA	–	4	5
Roads	NA	–	2	25	NA	–	NA	–	**1**	**39**
Lack of drinking water	5	5	1	32	1	23	4	5	2	34
Lack of telephones	NA	–	4	4	NA	–	NA	–	NA	–
Lighting system	NA	–	4	4	4	7	NA	–	NA	–
Credit facilities	NA	–	3	25	1	23	NA	–	NA	–
Arguments in the community	NA	–	NA	–	NA	–	3	8	NA	–
Lack of leadership	NA	–	NA	–	NA	–	4	5	NA	–

top priority project, as suggested by the qualitative evidence, while the other three did not. Furthermore, communities that did not receive their most preferred project received projects that were ranked relatively low in their list of initial priorities. This is true whether one assumes that group decisions were made by majority vote, which counts the most important problem, or whether the top three needs were counted in weighted proportional vote. One explanation for this could be that most important problems were often private goods – lack of credit and income generation, for instance which the social fund was unable to sponsor. But even if we focus on public goods, such as lack of water, health, poor roads, etc., we still see that the facility that was obtained is ranked very low. This is partly because the menu that JSIF offers is usually restricted to health clinics, schools, and water and road projects. However, even focusing on this narrow menu, we still see that in three out of five cases priorities that could have been addressed under the JSIF menu were ranked higher than the project that was obtained. Thus, the evidence for community drivenness is rather poor. The preferences of the majority did not seem to play a part in determining the project in most of the communities.

Moving to Table 3, we see a pattern in relation to whose votes count by examining if an individual's first priority matched with the project that was obtained. Here we see that economically better-off families with lower family size who were permanent residents were more likely to have their priority needs satisfied. Importantly, networks seem to make a big difference with those who socialise in traditional activities and with greater access to local leaders more likely to obtain their highest priority project. Note also that, as expected, Arnette Gardens stands out as the community with the best match between project obtained and the priorities of households.

However, even if a project does not address the priority needs of a majority in the community, it still may be a successful intervention if, via a process of benevolent capture, the community is ultimately mobilised and satisfied by the project. This is suggested by Table 4, which analyses whether respondents said that they would have ultimately preferred another project. The table shows that 82 per cent would not have preferred another project. The regression results here do not show a significant relationship with almost all the variables, indicating that there is no clear socio-economic group that was more satisfied with the project. Networks and proximity to community leaders also do not seem to matter. Contrasting Table 4 with the targeting tables, one gets the sense that, while the projects did not meet the ex-ante expressed preferences of the community, ultimately most people were satisfied with the choice. Therefore, the CDD process suggests a process of information transmission and persuasion by a small group of individuals who are associated with the leadership. While ex-ante targeting is poor, and the

TABLE 3
TARGETING – PROJECT MATCHED THE FIRST PRIORITY – PROBIT REGRESSION

Variables	Marginal	t-statistic
Male respondent	− 0.007448	− 0.22
Age respondent	0.003160	0.6
Age respondent squared	− 0.000024	− 0.45
Number household earners	0.034939	1.58
Household size	− 0.025268	− 1.88
Highest level education in HH	0.008839	1.42
Number children schooling age	0.006553	0.33
Female headed household	0.025555	0.82
Protestant	− 0.074475	− 1.34
Rastafari	− 0.047292	− 1.27
Permanent resident	0.165958	2.43
New Valley-Orange/Shadow-California	− 0.058658	− 1.32
Port Royal/Kennock	− 0.024946	− 0.48
Arnette Gardens/Union Gardens	0.572231	5.53
Rock Creek/Creighton	0.006995	0.55
Economic status	0.034893	1.74
Level of participation before JSIF	0.032005	0.75
Married	− 0.103957	− 2.34
Socialise in community activities	− 0.035111	− 0.87
Socialise in traditional activities	0.312179	1.99
Number of VIP within community	0.040328	2.57
Number of VIP outside community	− 0.019895	− 1.61
Number of observations		241
Wald test		104.55
Pseudo R-square		0.5088

participation process relatively exclusionary, most in the community seem satisfied with the end result.

Having examined the congruence between people's preferences and the project that they obtained, we turn to studying the determinants of participation in the JSIF decision-making process. First we will look at who participated in social fund meetings. Table 5 shows that 27 per cent of the sample reported that they had participated in at least one meeting. We also see that individual socio-economic characteristics do not seem to matter as much as experience with participation. Non-migrants, people who participated in projects prior to JSIF, and those who are well connected with leaders within and outside the community, are more likely to have attended a meeting. Note, that Arnett Gardens has the lowest level of participation. This once again suggests that active participants tend to be a small group of motivated people who tend to be active in community politics. But this variable, in conjunction with the targeting results, suggests that while

TABLE 4
WOULD YOU HAVE PREFERRED ANOTHER PROJECT?

	JSIF	
No	82.4 (174)	
Yes	17.57 (37)	
Total	100.0 (211)	
Probit – Regression		
Variables	Coefficient	t-statistic
Male respondent	0.0131	0.21
Age respondent	− 0.0005	− 0.05
Age respondent squared	− 0.0000	− 0.05
Male respondent under 25 years	0.0375	0.24
Number household earners	− 0.3254	− 0.77
Household size	0.0079	0.33
Highest level education in HH	0.0059	0.55
Number children schooling age	− 0.0161	0.39
Female headed household	0.0548	0.81
Protestant	− 0.1268	− 1.45
Rastafari	0.0572	0.41
Permanent resident	− 0.1269	− 2.04
New Valley-Orange/Shadow-California	0.0224	0.27
Port Royal/Kennock	0.1773	1.37
Arnette Gardens/Union Gardens	− 0.0810	− 0.98
Rock Creek/Creighton	− 0.0260	− 0.38
Economic status	− 0.0261	1.33
Level of participation before JSIF	0.0302	0.74
Married	0.4171	0.67
Socialise in community activities	− 0.3170	− 0.75
Socialise in traditional activities	− 0.4620	− 0.51
Number of VIP within community	0.0036	0.14
Number of VIP outside community	− 0.0051	− 0.22
Number of observations		194
Wald test		22.49
Pseudo R-square		0.12

the poor participate they do not necessarily obtain their priority projects. This raises the possibility that the non-poor may benefit more from participation than the poor.

The picture that emerges about targeting and participation in the JSIF process is, therefore, quite clear. Participation seems to have been restricted to a small group of active individuals who were close to the community leaders and who were highly motivated. The entire process is best characterised as benevolent capture. It was not a broad-based community driven process but pushed and activated by a few local leaders who nevertheless seemed to be active for reasons that benefited the community. Their private reasons for such benevolence are unclear, but obtaining the JSIF project clearly enhanced their stature within the community. In Arnett Gardens we have a special case wherein participation was practically non-

TABLE 5
PARTICIPATION IN SOCIAL FUND MEETING – PROBIT REGRESSION

Variables	Marginal	t-statistic
Male respondent	0.093255	1.48
Age respondent	0.003055	0.38
Age respondent squared	− 0.000010	− 0.14
Male respondent under 25 years	0.086185	0.52
Number household earners	− 0.018708	− 0.48
Household size	0.031997	1.38
Highest level education in HH	− 0.005635	− 0.57
Number children schooling age	− 0.014043	− 0.42
Female headed household	− 0.002901	− 0.05
Protestant	− 0.011797	− 0.14
Rastafari	0.097109	0.64
Permanent resident	0.123033	1.79
New Valley-Orange/Shadow-California	− 0.023791	− 0.29
Port Royal/Kennock	− 0.117366	− 1.33
Arnette Gardens/Union Gardens	− 0.203641	− 2.5
Rock Creek/Creighton	− 0.152942	− 1.84
Economic status	− 0.026820	− 1.45
Level of participation before JSIF	0.080577	2.04
Married	0.047801	0.8
Socialise in community activities	0.140674	1.32
Socialise in traditional activities	0.025144	0.21
Number of VIP within community	0.068108	2.75
Number of VIP outside community	0.041601	2.03
Number of observations		297
Wald test		73.34
Pseudo R-square		0.254

existent and the entire process driven by outsiders – in that sense it could be called ‘informed top-down’. Arnett Gardens was also the best targeted of the projects in that it attempted to address the most important concern of the vast majority of community members. New Valley/Orange, as shown in the qualitative section, was also well targeted in that the community received a project that addressed its most pressing need – a good road. The other projects in our sample, on the other hand, were extremely poorly targeted and would have performed abysmally in a vote. Moreover, targeting also seems to have not been pro-poor, with better educated and better networked individuals much more likely to receive their preferred project. One reason for the education effect, however, was that three of the five projects in our sample are school renovations, which are likely to have been favoured by more educated members of the community. However, ex-ante only 20 per cent of respondents would have preferred another project. Therefore, while the CDD process may have been exclusionary with poor ex-ante targeting,

once the project had been completed and was functioning, most in the community seemed satisfied by the choice.

We now shift focus to examining the impact of the social fund project on the community. Table 6 reports the results from the propensity score regression – Equation (1). When the observations are trimmed to drop those outside the common support, we lose about 10 per cent of the sample in both the JSIF and non-JSIF samples and, as expected, differences between them substantially decrease (Table 1). Each outcome variable (expressed in terms of changes from five years earlier, prior to the introduction of JSIF) that we look at will be examined in two different ways – cross-tabs (which provide a difference in difference estimator with matched community samples – but without propensity score matching and trimming), and difference in difference with propensity-score nearest neighbour matching and trimming.

Table 7 examines whether respondents find it more easy or more difficult to participate in groups or associations of people outside their immediate

TABLE 6
PROPENSITY SCORE

Variables	Marginal	t-statistic
Male respondent	− 0.0841638	− 0.84
Age respondent	0.0086509	0.91
Age respondent squared	− 0.0000692	− 0.78
Male respondent under 25 years	0.0391364	0.32
Number household earners	− 0.0128123	− 0.33
Household size	− 0.0631853	− 3.06
Highest level education in HH	0.0187891	1.92
Number children schooling age	0.0501981	1.52
Female headed household	− 0.0476699	− 0.48
Protestant	− 0.1001048	− 1.26
Rastafari	− 0.0522881	− 0.44
Permanent resident	− 0.1186874	− 1.96
New Valley-Orange/Shadow-California	− 0.2819047	− 4.20
Port Royal/Kennock	− 0.2224293	− 2.57
Arnette Gardens/Union Gardens	− 0.1989795	− 2.27
Rock Creek/Creighton	− 0.0430962	− 0.57
Economic status	− 0.0011797	− 0.07
Level of participation before JSIF	− 0.1082521	− 3.00
Married	0.0413458	0.73
Socialise in community activities	− 0.0374556	− 0.44
Socialise in traditional activities	− 0.0603422	− 0.69
No socialising	− 0.3472967	− 1.30
Number of VIP within community	0.0638849	2.54
Number of VIP outside community	− 0.0325901	− 1.55
Number of observations		463
Wald test		70.56
Pseudo R-square		0.1189

TABLE 7
IS IT EASIER NOW TO WORK WITH GROUPS AND ASSOCIATIONS OF PEOPLE OUTSIDE THE IMMEDIATE HOUSEHOLD?

	'Difference in difference' cross-tabulations	
	JSIF	Non-JSIF
Very difficult	7.48 (22)	7.01 (22)
Difficult	13.61 (40)	24.84 (78)
Same	21.77 (64)	20.06 (63)
Easy	37.76 (111)	38.85 (122)
Very easy	19.39 (57)	9.24 (29)
Total	100.00 (294)	100.00 (314)
Pearson Chi-Square:	21.2458	
	Nearest Neighbour Estimates	
Differences		
Nearest neighbour		
Mean	0.33	
t-statistic [1]	4.83	
Age [2]		
Above median	0.39	
Below median	0.28	
Test difference equal zero	0.80	
Economic status [3]		
Above median	0.47	
Below median	0.19	
Test difference equal zero	2.04	
Education [4]		
Above median	0.43	
Below median	0.27	
Test difference equal zero	1.14	
Gender		
Female	0.32	
Male	0.34	
Test difference equal zero	− 0.12	
Religious preference		
Non-Protestant	0.18	
Protestant	0.37	
Test difference equal zero	− 1.12	
Labour status		
Employed	0.35	
Unemployed	0.13	
Test difference equal zero	0.90	
Married		
Non-married	0.31	
Married	0.39	
Test difference equal zero	− 0.49	
VIPs within community		
Above median	0.38	
Below median	0.30	
Test difference equal zero	0.57	
VIPs outside community		
Above median	0.30	
Below median	0.35	
Test difference equal zero	− 0.32	

[1] Bootstrapped standard errors. [2] The median for age is 42 years. [3] The median for economic status is 0.36. [4] The median for years of education is 11.

households. The cross-tabs show a clear JSIF impact, as do the nearest neighbour estimates. The JSIF process clearly seems to make it easier for people to work with other members of the community. However, the nearest neighbour estimates show a significant wealth effect, suggesting that JSIF may have created more collective action capacity among the rich than among the poor, which against suggests an element of 'elite capture'. These results suggest that a social fund project within the community is more likely to enhance the capacity of the relatively well-off to engage in collective action.

Table 8 reports results from an analysis of changes in levels of trust. Trust is not an easy concept to define or measure. The question did not attempt any explanation of the word but simply asked if 'levels of trust and community cooperation' changed, before and after JSIF, between people from different backgrounds in the community. This is relatively vague, and the results should be interpreted with caution and examined in conjunction with the other outcome variables. However, since English is Jamaica's official language and is widely spoken and understood, the word 'trust' is likely to have been understood in similar ways by all the respondents in the five pairs of communities. The cross-tab results tell us that trust has slightly increased in the JSIF community, a finding confirmed by the propensity score results. The nearest neighbour estimates also present evidence to suggest that the increases in trust may have been significantly higher for those who identified themselves as Protestant, emphasising the important role of the church in Jamaica's communities.

Table 9 examines a related question – compared to five years earlier, is it now more difficult or easy to get the entire community to agree on a decision? The cross-tabs shows a slightly positive JSIF effect, but the nearest neighbour estimates are not significantly different from zero. The nearest neighbour estimates, moreover, also suggest that any improvements in the ability to reach collective decisions were more likely to have been realised by better networked and employed individuals. Thus, we can infer that while JSIF did not have much of an impact on improving the ability of individuals to reach collective agreements, these changes were more likely to have been realised by economically more stable and better networked individuals.

Examining these collective action variables as a group, we find that the JSIF process has built the community's capacity for collective action by enabling the community to work together as a group across people of different backgrounds, and by increasing trust. How sustainable this will be is less clear. The projects are new and the community's experience with collective action in the construction and management process is still fresh in their minds. But we have already seen warning signs in Rock Creek and Arnett Gardens that this improvement in collective action may not be sustainable. This lack of sustainability has a historical precedent in Jamaica's

TABLE 8
TRUST IN THE COMMUNITY

	'Difference in difference' cross-tabulations	
	JSIF	Non-JSIF
Worse	18.09 (53)	28.34 (89)
Same	35.15 (103)	33.79 (106)
Better	46.76 (137)	37.90 (119)
Total	100.00 (293)	100.00 (314)
Pearson Chi-Square:	21.2458	

Nearest Neighbour Estimates	
Differences	
Nearest neighbour	
Mean	0.13
t-statistic [a]	2.78
Age [b]	
Above median	0.17
Below median	0.10
Test difference equal zero	0.70
Economic status [3]	
Above median	0.17
Below median	0.09
Test difference equal zero	0.88
Education [4]	
Above median	0.07
Below median	0.17
Test difference equal zero	− 1.02
Gender	
Female	0.12
Male	0.16
Test difference equal zero	− 0.48
Religious preference	
Non-Protestant	− 0.14
Protestant	0.20
Test difference equal zero	− 3.03
Labour status	
Employed	0.15
Unemployed	− 0.08
Test difference equal zero	1.41
Married	
Non-married	0.11
Married	0.18
Test difference equal zero	− 0.71
VIPs within community	
Above median	0.21
Below median	0.08
Test difference equal zero	1.40
VIPs outside community	
Above median	0.21
Below median	0.10
Test difference equal zero	1.17

[a]Bootstrapped standard errors. [b]The median for age is 42 years. [c]The median for economic status is 0.36. [d]The median for years of education is 11.

TABLE 9
EASY TO REACH AGREEMENTS
'Difference in difference' cross-tabulations

	JSIF	Non-JSIF
Very difficult	11.50 (33)	6.21 (19)
Difficult	15.33 (44)	30.07 (92)
Same	21.25 (61)	17.65 (54)
Easy	34.15 (98)	24.18 (74)
Very easy	17.77 (51)	21.90 (67)
Total	100.00 (287)	100.00 (306)
Pearson Chi-Square: 26.0728		

	Nearest Neighbour Estimates
Differences	
Nearest neighbour	
Mean	0.06
t-statistic [1]	0.83
Age [2]	
Above median	0.15
Below median	− 0.01
Test difference equal zero	1.06
Economic status [3]	
Above median	0.13
Below median	0.00
Test difference equal zero	0.88
Education [4]	
Above median	0.00
Below median	0.10
Test difference equal zero	− 0.66
Gender	
Female	0.13
Male	0.04
Test difference equal zero	0.60
Religious preference	
Non-Protestant	− 0.10
Protestant	0.11
Test difference equal zero	− 1.10
Labour status	
Employed	0.11
Unemployed	− 0.48
Test difference equal zero	2.27
Married	
Non-married	0.08
Married	0.04
Test difference equal zero	0.23
VIPs within community	
Above median	0.21
Below median	− 0.05
Test difference equal zero	1.76
VIPs outside community	
Above median	0.21
Below median	0.00
Test difference equal zero	1.23

[1] Bootstrapped standard errors. [2] The median for age is 42 years. [3] The median for economic status is 0.36. [4] The median for years of education is 11.

history with the Jamaica Welfare Society, where interest and support in the cooperative movement withered away as fashions changed and prime movers passed on. The vestiges of the Society either died or became entrenched as part of the elite – as in the case of the Port Royal Brotherhood. Therefore, a question still remains: whether the burst in enthusiasm for collective action generated by the Social Fund will prove resilient over the long term. It should be kept in mind that any new innovation within a community is likely to generate some enthusiasm and 'a spirit of ecumenism', to quote the New Valley focus group. Furthermore, if the capacity for collective action that is generated by the social fund process is not kept aflame with opportunities and funding for further development initiatives, matters are likely to turn very quickly toward disillusionment. JSIF, like most social funds, is financially constrained and potentially unlikely to have the resources to permit a community to apply for a second project. Unless this is rectified, the CDD process may have the potential to result in a level of disillusionment that is, perhaps, even greater than in regular top-down projects because of the level of hope that CDD engineers within activist groups in a community.

We now turn to perceptions of how the process of decision-making within the community has changed, and the effectiveness of leadership and governance. Table 10 asks if respondents believe that community leaders are more responsive to their needs. Since the qualitative data revealed that the CDD process was often driven by local leaders – both formal and informal – this question checks to see if their efforts have resulted in a perception of greater responsiveness. The data show no JSIF effect either in the cross-tabs or the nearest neighbour estimates. The nearest neighbour estimates show, however, that the JSIF effect is stronger on younger individuals, those who are married and those who are better networked outside the community. Therefore, while JSIF does not seem to have increased overall perceptions of community leader effectiveness, it was more likely to have done so with younger, married and better networked individuals.

Table 11 provides an interesting contrast by examining whether community decisions are now more likely to be made by community leaders. Here we see a positive JSIF effect, both in the cross-tabs and the propensity score nearest neighbour estimates. The nearest neighbour results reveal that less educated and older individuals are more likely to report that decisions are made more by community leaders. Notice, from the cross-tabs, that non-JSIF communities have also seen an increase in the role of the community leader, suggesting that there is a general decentralisation process at work in Jamaica that seems to be affecting communities regardless of their contact with JSIF. Table 12 focuses on changes in the role of the community in making decisions – on issues of 'voice' by reporting results on changes in decisions made by community vote. The variable does not show a JSIF impact – that is,

TABLE 10
COMMUNITY LEADER RESPONSIVENESS
'Difference in difference' cross-tabulations

	JSIF	Non-JSIF
No	74.24 (219)	75.00 (240)
Yes	25.76 (76)	25.00 (80)
Total	100.00 (295)	100.00 (320)
Pearson Chi-Square: 0.0472.		

	Nearest Neighbour Estimates
Differences	
Nearest neighbour	
Mean	0.01
t-statistic [1]	0.21
Age [2]	
Above median	− 0.09
Below median	0.09
Test difference equal zero	− 2.80
Economic status [3]	
Above median	0.03
Below median	− 0.02
Test difference equal zero	0.76
Education [4]	
Above median	0.05
Below median	− 0.02
Test difference equal zero	1.14
Gender	
Female	− 0.02
Male	0.04
Test difference equal zero	− 1.00
Religious preference	
Non-Protestant	− 0.07
Protestant	0.02
Test difference equal zero	− 1.19
Labour status	
Employed	0.00
Unemployed	0.02
Test difference equal zero	− 0.15
Married	
Non-married	0.05
Married	− 0.08
Test difference equal zero	1.85
VIPs within community	
Above median	0.05
Below median	− 0.03
Test difference equal zero	1.32
VIPs outside community	
Above median	0.09
Below median	− 0.03
Test difference equal zero	1.71

[1] Bootstrapped standard errors. [2] The median for age is 42 years. [3] The median for economic status is 0.36. [4] The median for years of education is 11.

TABLE 11
DECISIONS BY COMMUNITY LEADER
'Difference in difference' cross-tabulations

	JSIF	Non-JSIF
Less now	19.29 (27)	28.57 (64)
Same now	26.43 (37)	29.91 (67)
More now	54.29 (76)	41.52 (93)
Total	100.00 (140)	100.00 (224)
Pearson Chi-Square: 6.3621		

	Nearest Neighbour Estimates
Differences	
Nearest neighbour	
Mean	0.18
t-statistic [1]	2.68
Age [2]	
Above median	0.31
Below median	0.08
Test difference equal zero	1.74
Economic status [3]	
Above median	0.11
Below median	0.25
Test difference equal zero	− 1.05
Education [4]	
Above median	0.01
Below median	0.28
Test difference equal zero	− 2.02
Gender	
Female	0.24
Male	0.10
Test difference equal zero	1.11
Religious preference	
Non-Protestant	− 0.03
Protestant	0.24
Test difference equal zero	− 1.75
Labour status	
Employed	0.20
Unemployed	0.00
Test difference equal zero	0.89
Married	
Non-married	0.11
Married	0.33
Test difference equal zero	− 1.60
VIPs within community	
Above median	0.19
Below median	0.16
Test difference equal zero	0.21
VIPs outside community	
Above median	0.18
Below median	0.18
Test difference equal zero	− 0.03

[1] Bootstrapped standard errors. [2] The median for age is 42 years. [3] The median for economic status is 0.36. [4] The median for years of education is 11.

TABLE 12
DECISIONS BY COMMUNITY MEETING WITH VOTE
'Difference in difference' cross-tabulations

	JSIF	Non-JSIF
Less now	21.26 (27)	28.88 (54)
Same now	28.35 (36)	24.06 (45)
More now	50.39 (64)	47.06 (88)
Total	100.00 (127)	100.00 (187)
Pearson Chi-Square:	2.4126.	

Nearest Neighbour Estimates	
Differences	
Nearest neighbour	
Mean	0.00
t-statistic [1]	0.06
Age [2]	
Above median	− 0.14
Below median	0.13
Test difference equal zero	− 2.08
Economic status [3]	
Above median	0.06
Below median	− 0.04
Test difference equal zero	0.75
Education [4]	
Above median	0.02
Below median	− 0.01
Test difference equal zero	0.21
Gender	
Female	0.00
Male	0.00
Test difference equal zero	− 0.01
Religious preference	
Non-Protestant	− 0.04
Protestant	0.02
Test difference equal zero	− 0.40
Labour status	
Employed	7.77
Unemployed	0.05
Test difference equal zero	− 0.21
Married	
Non-married	0.06
Married	− 0.11
Test difference equal zero	1.18
VIPs within community	
Above median	0.14
Below median	− 0.14
Test difference equal zero	2.22
VIPs outside community	
Above median	0.04
Below median	− 0.02
Test difference equal zero	0.46

[1] Bootstrapped standard errors. [2] The median for age is 42 years. [3] The median for economic status is 0.36. [4] The median for years of education is 11.

there is no discernible difference between JSIF and non-JSIF communities on community decisions with a vote. However, perceptions of improvements in democratic decision making are more likely to have been reported by younger individuals. Respondents with access to important people within the community are also more likely to perceive an improvement, again indicating that better networked people are more likely to have been consulted about community decisions in this process. Note again that both JSIF and non-JSIF show an increase in democratic decision making over the period, suggesting, again, that community driven mechanisms may be making inroads in Jamaica outside the JSIF initiative as well as within it.

V. CONCLUSION AND POLICY IMPLICATIONS

The overall sense that we get of the impact of JSIF on the capacity for collective action in this sample is consistent across both the qualitative and quantitative data. JSIF does seem to have had a social impact – trust has increased, and people from JSIF communities are more likely now to be able to work with strangers in making community-based decisions. However, the JSIF process does not seem to have been very democratic, with community leaders dominating decision making. The data suggest that JSIF may have strengthened the hand of community leaders. When leaders are benevolent, this could be a good thing, but if they are corrupt, this could result in bad outcomes. In these communities, overall, there seem to have been leaders who had the best interests of the community at heart. While respondents are for the most part happy with the project and with JSIF, and JSIF has built good feelings within the community, it is not clear that the JSIF process has democratised decision making, any more than other processes present in Jamaica. It also seems to have improved the capacity for collective action, but whether these improvements will be sustained over the long run is unclear.

In this case study, CDD does not seem to have succeeded in doing what is touted to be one of its main advantages – improve the match between what the community needs and the projects that it obtains. We see that, perhaps, because the CDD process is dominated by small groups of motivated individuals mobilised by a leader, targeting is very poor, with three of the five communities not obtaining the project that would have been preferred by a majority. Ironically, one of the two cases where the match between community preferences and the project was well done was essentially a top-down project – the stadium in Arnett Gardens. However, this could be characterised as ‘informed top-down’. Extensive social analysis led to a project designed to address the most compelling need of the community – its plague of violence. Since the community was so fragmented and conflict ridden, participation would have been very difficult to achieve. JSIF directly

implemented the project and, with a local NGO, hired the contractor and supervised the construction with no contribution from the community. Consultations with the community were the result of PRA and focus group discussions conducted by a team of anthropologists: no one was mobilised or had to attend any meetings. This suggests that good social analysis could substitute for a community driven participatory process, particularly in complex, heterogeneous communities. The other alternative could be to simply subject a project menu to a secret ballot within the community or to conduct a needs assessment. However, by the end of the JSIF process, people seem to be satisfied with the choice of project , a contrary finding which suggests that CDD is primarily a process of persuasion and learning.

One potentially worrying finding indicated by the quantitative data is that better off, better networked individuals seem to dominate the participation process and receive their preferred projects. Moreover, they are also more likely to develop collective action skills. This suggests that the CDD process in Jamaica may compound existing inequities and even perpetuate them by enhancing the ability of the better educated and better-off to work more effectively as a group. The fact that community leaders are not perceived to be more effective but to have a greater say in decisions as a result of the JSIF process, particularly by less educated individuals, also provides some evidence of a bias against the poor. This may not be intentional, but is the result of a process that requires a high level of literacy and political awareness to obtain a successful outcome. An open question that remains is whether the collective action skills built within a section of the community results in more sustainable projects. Since none of the facilities are more than three years old, and it is difficult to find a comparable counterfactual for them, it is difficult to tell if facilities assisted by the social fund are better run and better managed.

CDD is clearly no panacea. In societies that are sharply divided, it is difficult to achieve consensus on projects that meet the priority needs of the majority of the community. This may increase the possibility of ‘capture’. A few educated, motivated, individuals led by effective leaders may be able to obtain funds for projects that are relatively more beneficial for them. Yet, this capture may be ‘benevolent’ in the sense that such projects may serve to benefit the entire community in the long run with the vast majority of individuals in the community ultimately expressing satisfaction with it. Does this compare well with a traditional top-down project? It is difficult to say with these data, but participation does seem to create a greater sense of accomplishment and ownership within the community. On the other hand, targeting could be improved by the simple act of instituting a needs assessment or having the community vote by secret ballot for a project. But again, if a project was better targeted, say by a secret ballot, would we see a

group of motivated people work hard to keep it going with a spirit of 'ecumenism?' In other words, if CDD has the potential to provide a community with a school to which everyone has access, and which is constructed and managed by a group of educated and motivated individuals, this is not such a bad thing. On the other hand, the argument that CDD 'empowers the poor' is clearly not indicated by these data. There is more evidence in support of the belief that it improves the capacity for collective action, but these data are unable to provide unambiguous answers to whether this results in more sustainable projects. To answer the sustainability question, we would require data that has a clear counterfactual – evidence on similar facilities provided by a CDD and a non-CDD process, with these being tracked over an extended period to see how the relationship between participation and sustainability evolves over time.

It is important to say, at the end, that these results do not suggest either that JSIF is either a 'failure' or a 'success'. The sample size is simply too small to make a definitive claim either way. However, this case study does raise some questions about some of the assumptions under which CDD operates – that it is demand-driven, for instance. We need to first ask: Who demands? Who drives? At the same time, as we begin critically to examine the practice of participatory development [*Cooke and Kothari, 2001; Mansuri and Rao, 2004*], we should also be aware that rejecting one solution in favour of another untested approach is also not the answer [*Pritchett and Woolcock, 2004*] – indeed the 'best practice' may indeed be the absence of a best practice. CDD is a difficult thing to get right in the early stages and requires a long-term horizon, with constant and institutionalised learning by doing to contextualise its practice to the extremely heterogenous environments under which it operates.[15] Putting this principle into practice, however, will require a change in the culture of donor agencies.

NOTES

1 By conservative calculations, the World Bank's lending on CDD has risen from $325 million in 1996 to $2 billion in 2003. Using a broader definition which includes lending for 'enabling environments' for CDD, World Bank lending has risen from $3 billion to $7 billion in the same period [*Mansuri and Rao, 2004*].

2 The capacity for collective action is a widely used definition of social capital [*Woolcock and Narayan, 2000*]. However, social capital has so many other definitions that, for the sake of clarity, we will avoid using the term in this article.

3 We recognise that the word 'community' is imperfect, and use it more as an analytical than an empirical concept [*Gusfield, 1975*].

4 This is a mixed methods approach (for example, White [*2002*]; Kanbur [*2003*]) that emphasises the involvement of the same research team both in the quantitative and qualitative analysis, and in treating the qualitative and quantitative not just as two sources of data to facilitate 'triangulation', but as an integrated source of information analysed under

econometric principles. For more on using mixed methods to conduct impact evaluations see Rao and Woolcock [*2003*].

5 The names of three of the five communities have been changed. Two communities, Port Royal and Arnett Gardens, are extremely well known and difficult to disguise. Furthermore, understanding the impact of the JSIF project in them requires an understanding of their history. For these reasons we have retained their real names. The names of all the individuals quoted have also been changed, with the exception of prominent people who would be difficult to disguise.

6 Clearly, 'cultural' here was meant to include social and economic development.

7 'Dons' are leaders of factions or gangs, usually with close political affiliations, in inner-city Kingston.

8 The Arnett Gardens report is based upon fieldwork conducted by Ruel Cooke for the JSIF evaluation, and a separate study by Grace Imani Duncan [*2001*] commissioned for this article, followed up by work by Duncan and Woolcock [*2002*].

9 The elections were held in October 2002 with a victory for the PNP.

10 Aniruddha Dasgupta, who manages urban CDD projects in Indonesia.

11 Defined as characteristics not captured in the quantitative data.

12 We also tried a 'proportional voting' system by using all three responses and calculating a weighted vote, with the highest weight given to the first problem, the second problem receiving 50 per cent of the weight of the first problem, and the third problem receiving 33 per cent of the weight of the first problem. This produced very similar results to the 'majority vote' system and is therefore not reported for the sake of brevity.

13 The variable 'influential people' is constructed by asking respondents whether they had frequent contact with a series of people such as the mayor, pastor, extension worker, etc.

14 Since this is based on a retrospective question on conditions five years before the survey – the responses could have been influenced by the type of project obtained. To check for this a similar retrospective question was asked to the control communities, and the responses on the matched treatment and control communities were very similar indicating that this was not a serious problem (see Rao and Ibanez [*2003*] for the tables).

15 See Mansuri and Rao [*2004*], and Rao and Walton [*2004*] for more on this point.

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