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Community currency in the United States: the social environments in which it emerges and survives†

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Abstract. Community currency originated as a means to empower the economically marginalized. This paper studies the US population of community currency systems using locally printed money. Eighty-two systems are identified that have been attempted in the United States since 1991. Internet searches and contact with system coordinators indicate that only 20.7% of all systems are active. Regions in which they occur are described; more than one quarter are in Pacific states. City-level Census 2000 data are employed in analyses of environmental conduciveness to determine in which types of social environments local currencies emerge and survive within. Social movement theory is engaged to identify general, population-based resources for local movements. Economic marginality and labor-market-independence hypotheses are also formulated and tested. The major findings indicate that cities with local currencies are characterized by populations with lower household incomes, higher poverty rates, higher unemployment rates, and larger self-employment sectors. Evidence is also presented indicating that community currencies tend to survive in places with younger populations, higher educational attainment, fewer married people, and less residential stability. Implications concerning the future of the community currency movement and its ability to empower the marginalized are drawn.

Introduction

Community currency emerged in the United States, as it has elsewhere, as a means to empower the economically marginalized and to build social capital. This substantial social movement, comprised of autonomous, local systems, has proliferated in the past two decades. Although local currencies in the United Kingdom have received much attention in the social science research literature, US cases have gone largely unnoticed. This is the first known scientific effort to study the US population of local currency systems using printed money.

Internet searches and contact with system coordinators indicate that eighty-two systems using paper currency have been attempted in the USA. This study addresses two primary research questions: in which types of social environments do community currencies emerge and in which environments do they survive? City-level US Census 2000 data are employed. Two different sets of factors representing environmental conduciveness will be tested: (1) to determine whether the populations of the places where community currency systems appear differ from the USA as a whole, and (2) to identify the environmental determinants of 'successful' community currency systems. Only 20.7% (17 of 82) of the attempted US systems are currently active.

Social movement theory is engaged to develop hypotheses concerning general, population-based resources that may facilitate social movement formation and social movement success. Because community currency seeks to empower the marginalized, hypotheses concerning economic marginality and labor market independence are also formulated.

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This research makes several important contributions. First, it introduces this substantial, grassroots movement in the USA to the social science community. The local currency movement can be considered part of the larger antiglobalization movement (see Leyshon and Lee 2003; Starr 2001). The current academic stir surrounding antiglobalization is noteworthy (see Bircham and Charlton 2001; Brecher et al, 2000; Smith 2001), yet the near exclusive focus on large-scale public demonstrations and movement coalitions slights local alternatives designed to mitigate some the effects of of globalization.

The environmental conduciveness analyses make an important scientific contribution by documenting where these systems emerge and where they survive. This evidence will be used to assess the status of this movement. Community currency concerns major domestic public policy issues as it may have the potential to empower the most economically marginalized and to revitalize low-income regions. Some government leaders outside of the USA have advocated community currency and passed supportive legislation (see Williams, 1997). Hence, this study may be of interest to public policy makers and analysts.

Community currency in the United States

The idea of local currency has a long history in the United States. Early colonial settlers' use of corn and wampum as a medium of exchange and the issuance of scrip during the Great Depression are just two examples of different forms of local currency (Shuman, 1998; Swann and Witt, 1995). Although all community currency systems differ, each is premised on an alternative currency as a medium for the exchange of services and goods. Unlike conventional bartering (in which two actors trade directly with one another), local currencies expand commerce by connecting a network of people (and often businesses). The provider of a service or good receives credit in the form of the community currency that can be used for making purchases from other participants in the system.

These local associations permit people to utilize their time and skills by providing services or selling goods outside of the mainstream economy. The unemployed and underemployed can be full participants in these alternative economies. Because national currencies are a scarce commodity, community currencies increase one's purchasing power. Instead of formal, bureaucratic employment relations based on economic capital, local currencies redefine 'work' (Seyfang, 2001), foster community relations, and build social capital.

Some schemes have printed money that is used for purchases whereas others operate through 'virtual currency' that exists only in computerized accounts (Lee, 1996). Local currency systems also differ as to whether they are based on the *value* of the services or goods provided, or whether they are based on the *labor time* required to produce such services or goods. Participants in community currency systems publicize the goods or services they wish to offer and/or obtain through a local directory, newsletter, or notice board. Interested parties contact one another, negotiate the transaction, and then arrange it.

It is argued that community currency systems are excellent tools to help revitalize local economies because they encourage wealth to stay within a community rather than flowing out of it (Bowring, 1998; Meeker-Lowry, 1996). These 'closed economies' prevent seepage because the currency must be used within the system (Williams, 1996a). Local money schemes can *promote* the trading of goods and services whereas national money often *restricts* exchange because of its scarcity. These systems encourage greater self-direction and flexibility in working patterns while valuing the skills of the unemployed and economically marginalized (Seyfang, 1996). Ideologically, community trading

networks promote principles of egalitarianism, ecology, and sustenance through independence from the outside market economy (Lee, 1996; Solomon, 1996). Such local enterprise relies less on out-of-area products, decreasing the environmental externalities of long-distance transportation and trade (Hawken, 1993; Milani, 2000).

Internationally, there are three notable community currency systems in operation: Local Exchange Trading Systems (LETS), Time Banks, and Hours systems (Meeker-Lowry, 1996). LETS have been the most popular and widespread form of local currency schemes. The first LETS system was created in British Columbia in 1983 by an unemployed computer programmer, Michael Linton. Transactions are reported to a centralized coordinator via telephone, the Internet, or checks (similar to a bank account). Members receive monthly statements and most systems have debit and credit limits (to prevent 'freeloading' and 'hoarding'). In 2000 it was reported that over 2000 communities in Europe, Canada, Australia, New Zealand, Asia, and Africa had established LETS (Cohen-Mitchell, 2000). While never being widely pursued in the USA, an online LETS directory contains information on over 1500 LETS groups from thirty-nine countries (Taris, 2004). Yet researchers have concluded that LETS activity peaked in the mid-1990s and a substantial proportion of LETS are no longer operating (North, 2003; Seyfang, 2002).

The Time Dollar Network was started in Miami, Florida in 1983 by a law professor, Edgar Cahn (see Cahn, 2000; Cahn and Rowe, 1996; Jacobson et al, 2000). This program is diverse and flexible. Some operations are part of existing organizations and formalize volunteering among the socially marginalized—the young, the elderly, the poor, and the disabled. The idea is that all people have talents and can contribute their time to become 'coproducers', rather than mere consumers of social welfare initiatives (Cahn, 2000). Other Time Dollar operations look very similar to LETS or Hours, as *alternative* economies that tend to be favored by alternative people (that is, countercultural greens and anticapitalists). Time Dollar programs are egalitarian as each hour of service earns the same credit as any other, regardless of the character of one's skills. Computerized savings accounts keep track of member credits and debits. The Time Dollar Network's online directory currently lists fifty-three Time Dollar operations in the USA (Time Dollar Institute, 2005). Cahn inspired the founding of Time Banks UK in 1998 and the US version has recently been renamed Time Banks USA. Time Banks UK currently has seventy active programs and another seventy in development (Time Banks UK, 2005).

The success of LETS in the late 1980s inspired community activist Paul Glover to establish a printed local currency system in Ithaca, New York in 1991 (see Glover, 2000). Ithaca Hours is a paper currency whose value is linked to the US dollar. Each 'one Hour' Ithaca bill is equivalent to $10 because this was the approximate average hourly wage in the area at the time the system was started. The notes come in six denominations ranging from one-tenth Hour ($1) to Two Hours ($20) to facilitate a variety of different transaction types. Despite being called 'Hours', the $10 association and multiple denominations lead participants to perceive the currency vis-à-vis the value of US dollars rather than the labor time expended in any given transaction. Needless to say, negotiation often occurs between transacting individuals. Since its founding, over $105 000 (10 500 Hours) in Ithaca Hours have been issued and thousands of participants (including 400 businesses) have exchanged the currency. The current directory ("Hour Town") contains over 1000 listings of available and sought-after goods and services.

The printed currency format makes Ithaca Hours quite different than LETS and Time Banks. The latter require substantial coordination and organization as every transaction is accounted for. Potential participants must complete a membership

application and be entered into the computer database. Many LETS and Time Banks have formal, storefront offices and staff (grants and donations usually provide the necessary federal currency to pay for such space and personnel). On the other hand, Ithaca Hours is less regulated. With paper notes, no computerized accounting system nor accountant is needed as transactions are not recorded. Although there are printing costs not incurred in virtual currency systems, Hours systems require less administration and administrative labor is often volunteered (or paid for in Hours). Homes or small businesses usually serve as the system 'office'.

A cornerstone of the Hours model is the incorporation of local businesses. Ithaca Hours administrators have been very successful in recruiting local businesses that will accept the currency. There exists what can be called an "Ithaca Hours Zone": "Three contiguous mixed business and residential areas … comprise a virtually 'chain-store free zone' where most of the daily exchange of Hours takes place" (Jacob et al, 2004b, page 53). Many LETS and Time Banks also have small business members. However, the paper currency helps to facilitate business participation as there is no need to log transactions and report them to a central coordinator. Businesses accepting Hours simply store the currency in their cash drawers and can make change in Ithaca Hours. Importantly, there is a large enough network of business participants in Ithaca Hours that businesses can actually spend the money. As in business trading networks, they buy supplies from one another and some businesses even pay a portion of their employees' salaries in Hours.

Ithaca Hours' printed money also seems to facilitate individual participation. Symbolically, the physical bills function as a means of reinforcing that this currency is indeed real. Like their dollars, Ithaca Hours participants carry their Hours around in their wallets. The purchasing process is relatively easy to understand too. Ithaca Hours' \$10 equivalence and note format causes participants to think of the Hours' value in terms of US federal dollars. Time banks and many LETS are explicitly based on the participants' labor time expended as a unit of value. Labor time is a more difficult metric for participants to work with—especially when purchasing goods from retailers.

The Hours economy is also easier to enter—anyone can purchase or begin accepting Ithaca notes; no application is required. However, most participants do formally become members in the system by submitting an application and listings to the official directory. Ithaca Hours spurs immediate participation in the system by giving new members free Hours upon joining. LETS and Time Banks also encourage new participants to begin spending. Small debts are generally seen as favorable because the indebted participant will feel more obligated to provide services to others. Yet some participants are uncomfortable going into local currency debt. Printed currencies essentially discourage participants from going into debt (though this is possible). Similar to cash, the sense is that if it is not in your wallet, you do not have it to spend. The advantages of a printed currency do come at a price, however. It is impossible to track accurately the circulation of Ithaca Hours. Without knowing how often Hours are exchanged or how many active participants exist, Hours systems lack important data that could be used to evaluate the system status.

Ithaca Hours' success has resulted in tremendous publicity in the USA, including prime-time television and popular magazine reports. This form of community currency has spread rapidly across the United States since Ithaca Hours began in 1991. The present research focuses solely on those community currency systems in the United States based on the Hour model. The previous empirical research on local currencies is reviewed next.

Previous research

A literature review and contact with system founders and knowledgeable scholars indicate that there has been very little scientific, empirical analysis of community currency in the United States. Indeed, only two publications could be located. Both papers, written by a Canadian research team, report on a case study of Ithaca Hours (Jacob et al, 2004a; 2004b). In one paper the authors report findings from a survey of forty-two active Ithaca Hours participants. They find that the average Hour user is well educated, has a preference for green politics, and experience in social activism. Many participants are self-employed and the average user has only a modest income (60.5% of respondents reported earning $30 000 or less per year). The average Hours participant estimates that he or she spends approximately $350 (35 Hours) and earns approximately $300 (30 Hours) per year. Half of the respondents reported an average of four or fewer transactions per month. About 41% see Ithaca Hours as allowing them to make purchases that they would not be able to afford otherwise. Most respondents view Ithaca Hours in social and relation terms, as fostering friendships and community connections. The authors argue that Hour supporters are not the average Ithaca residents. Despite the city's progressiveness, Ithaca Hours remains viable thanks to the backing of the city's countercultural, 'granola' residents. They also note that use of Ithaca Hours has been declining: "At the height of its popularity in the mid-1990s close to 2,000 Ithaca area residents were buying and selling services with Hours" (Jacob et al, 2004b, page 44). They conclude that this system is "held together by a relatively small number of store owners dedicated to the principles of a self-reliant business community and a group of activists like Paul Glover who are committed" (Jacob et al, 2004b, page 54).

In the other paper the authors are concerned with—as is this study—the environmental context of Ithaca. "For the purposes of this report, the principal question about Ithaca is: What makes this upstate New York college and university town the kind of place that would host what has become, arguably, the planet's most successful community currency experiment?" (Jacob et al, 2004a, page 31). The authors find that there are basically four different reasons. First, there is economic need in Ithaca. The labor force is bifurcated as there are some wealthy, but the city is comprised of mostly low-income workers. Second, they argue that the intellectual culture of the city welcomes new ideas and this alternative economy in particular. Third, many countercultural activists live in Ithaca and serve as the primary participants. Fourth, the authors state that the general progressive nature of the city provides a supportive political environment.

Community currency systems outside of the USA have been studied rather extensively. LETS have received the most attention given their popularity and longer history, though Time Banks UK is also being studied (see Seyfang, 2002; Seyfang and Smith, 2002). This previous research includes case studies of individual LETS in the United Kingdom (Caldwell, 2000; North, 1998; O'Doherty et al, 1999; Pacione, 1997; Seyfang, 1997; Williams, 1996b), Australia (Jackson, 1997), Germany (Schroeder, 2002), and Mexico (Lopezllera-Mendez and DeMeulenaere, 2000). Case studies of multiple LETS operations in the United Kingdom (Lee, 1996; Thorne, 1996; Williams et al, 2001a), Australia (Ingleby, 1998), and Norway (Gran, 1998) have also been conducted.

Two studies have been conducted on the LETS population in two different countries. In 1995 Williams (1996a; 1996c) administered a postal survey to coordinators from every LETS in the United Kingdom as well as to coordinators of Australian LETS (Williams, 1997). In 1999 Williams et al (2001a) surveyed all UK LETS coordinators again. LETS members have also been surveyed in two large-scale studies attempting to describe participants. Liesch and Birch (2000) analyze data they

collected from a national sample of Australian LETS members and Williams et al (2001a; 2001b) gathered data from a national sample of UK LETS members.

The research reported on here is unique. It is the first to focus on the population of US community currency systems using printed money. Moreover, it is the only known study of its kind—an environmental analysis focusing on the social contexts in which local currencies emerge and survive. In the large research literature on social movements, the nearest parallel to this study is research on Mothers Against Drunk Driving (MADD) chapters (see McCarthy et al, 1988; Weed, 1991). The hypotheses to be tested in this study are described next.

Theory and hypotheses

Two different sets of factors representing environmental conduciveness will be tested in this study to determine whether the cities in which community currency systems appear differ from the USA as a whole and to identify the determinants of successful community currency systems. Social movement theory is the literature engaged to develop hypotheses concerning general, population-based resources that may facilitate community currency systems.

Community currency is a unique type of social movement. In Starr's (2001) survey of anticorporate movements, community currency is included and characterized as a 'relocalization' movement. Leyshon and Lee (2003) also see local currencies, "day-to-day experiments in performing the economy otherwise" (2003, page 16), as part of the antiglobalization movement in terms both of their activists and of their goals. Yet such local grassroots organization may not be considered proper social movements according to some definitions.[1] For example, Tarrow's (1998) widely cited conception of social movements is quite stringent. He discusses four necessary elements which distinguish social movements from other social phenomena: (a) disruptive, collective challenges, (b) the existence of common claims and interests, (c) the establishment of a collective identity, and (d) sustained interaction with elites, opponents, and authorities.

Community currency systems are not based upon nor do they normally involve any disruptive protest. However, widespread participation in these alternative currency systems may have some disruptive effects for some (for example, merchants who lose business for not participating in the system). Regardless, community currency systems also differ from Tarrow's conception of social movements in that they do not involve sustained interaction with opponents. Participants in community currency systems have, to some extent, chosen to 'exit' (see Hirschman, 1970) the mainstream economic system and are not engaged in contentious interaction with any other party.

McAdam and Snow (1997) provide a slightly different definition of movements that relaxes the disruptive and contentious tactics element somewhat. They see "social movements as collectivities working with some degree of organization and continuity to promote or resist change through a mixture of extrainstitutional and institutionalized means" (page xxii). Thus, social movement tactics need not necessarily be disruptive, only 'extrainstitutional'. The creation of alternative local economies appears to constitute noninstitutional means. Snow et al (2004, page 9; italics in original) have a similar conceptualization: "we argue that movements be considered as challengers to or defenders of existing *institutional authority*—whether it is located in the political, corporate, religious, or educational realm." Community currency systems do challenge the institutional authority of the mainstream, corporate economy.

[1] See Collom and Mitchell (2005) for an extended discussion of social movement conceptualization.

Other definitions of social movements are quite loose. McCarthy and Zald, for example, say that:

> "A *social movement* is a set of opinions and beliefs in a population which represents preferences for changing some elements of the social structure and/or reward distribution of a society ... we view social movements as nothing more than preference structures directed toward social change" (1977, pages 1217 – 1218; emphasis in original).

Community currency can easily be considered a social movement under this belief-centered definition. Participants in these systems most certainly have preferences for change. Indeed, they have *acted* on behalf of these preferences.

If it is acceptable that community currency can be considered a movement, it is possible to be more specific and to characterize it as a particular type of social movement. The closest parallel seems to be with what have been called 'communal' (Kanter, 1972) or 'communitarian' (Zablocki, 1980) social movements. These movements seek "to establish small-scale social systems to remedy [the] ills of the larger society" (Kanter, 1972, page 62) and "to live according to their own value systems outside of established social institutions" (Appelbaum and Chambliss, 1995, page 544).

The definitive characteristic of communal movements is that they build alternatives to mainstream social institutions. Therefore, such movements can be labeled simply as 'alternative'. As Rothschild-Whitt (1979, page 510) states:

> "Alternative institutions may be defined in terms of their members' resolve to build organizations which are parallel to, but outside of, established institutions and which fulfill social needs (for education, food, medical aid, etc) without recourse to bureaucratic authority."

Unlike many movements, alternative social movements are not 'oppositional.' They create their own social space to defy mainstream institutions (rather than engaging in sustained, disruptive interaction with them). Flacks (1974, page 70) has argued that social movements need "to find ways to make history through everyday activity. Such activity includes countless experiments to reconstitute patterns of everyday life …" (see also Flacks, 1988). If we use these words, community currency is an 'everyday' social movement in which actions are 'history making' as participants influence the conditions and terms of their everyday lives. Although it has yet to be stressed in the larger literature, the alternative versus oppositional dichotomy (see Williams, 1973) is an important one when considering social movements. Other notable alternative social movements include the counterculture movement of the 1960s and the growing home-schooling movement of today (see Collom and Mitchell, 2005).

General social movement resources

Social movement theorists discuss many general, population-based resources that facilitate social movement formation and success. Community currency systems are expected to emerge and be successful in places characterized by greater resources. Eight factors are discussed below: age, education, race, marital status, homeownership, residential stability, population size, and population density.

Young people are a resource for social movements insofar as they are more easily recruitable. As Flacks (1971, page 6) argues, young people are more likely to be social movement activists because they "have yet to form stable vocational and social attachments, because they receive most directly and fully the socializing efforts of established institutions, and because they are future-oriented." Younger people are generally more likely to have greater discretionary time, facing fewer obstacles to participation in social movements (Klandermans, 1997; McAdam, 1986). Therefore, community currency systems are expected to emerge and be more successful in cities with younger populations.

The educated are also a resource for social movements. Previous research indicates that protestors tend to be more educated than nonprotestors (Dalton, 2002; Sherkat and Blocker, 1997) and that the educated are more civically engaged (Putnam, 2000). Education increases political tolerance and political efficacy (Hall et al, 1986; Jenkins and Wallace, 1996). Therefore, community currency systems are expected to emerge and be more successful in cities with more educated populations.

Racial composition will also be tested in the models. Historically, people of color in the USA have been superexploited and politically excluded (Bonacich, 1989). Social movements have been a key vehicle for people of color to become empowered. Also, previous research has found that African Americans have greater protest potential than white Americans (see Isaac et al, 1980; Jenkins and Wallace, 1996). These arguments suggest that local currencies will emerge and be more successful in cities with more minorities.

Marital status is also important to consider. McAdam's (1986, page 70) notion of biographical availability, "the absence of personal constraints that may increase the costs and risks of movement participation, such as full-time employment, marriage, and family responsibilities", indicates that married people face greater barriers to participation. Therefore, the unmarried serve as a better resource for social movements. Those cities with larger unmarried populations are expected to be more likely to foster community currency emergence and survival.

Another variable to be tested is homeownership. There is a widespread popular assumption that homeowners are more politically conservative. This suggests that homeowners would be less likely to participate in social movements intending to empower the marginalized. Moreover, homeowners are also likely to be less biographically available for participation than are renters. However, in the authoritative test of the impact of homeownership upon political beliefs, Gilderbloom and Markham (1995, page 1602) find "that homeownership rarely has an impact on political attitudes." Only one of the many tested relations is significant: homeowners are less supportive of government spending on inner-city problems. Although the explicit link between homeownership and social movement participation remains unclear, it is hypothesized here that community currency systems will emerge and thrive in cities with fewer homeowners.

Residential stability may also be an important factor for community movements. Pennings (1982) argues that urban change or volatility generally triggers the formation of new organizations (and the implication is that this would include social movement organizations). However, Gilderbloom and Markham (1995, page 1603) present evidence indicating that those who move frequently "are transitional and … vote less and become less engaged in political issues." Pennings's (1982) argument has found support in a study of MADD chapters (McCarthy et al, 1988), so it will be sided with here. Local currencies are expected to emerge and be more successful in cities with less residential stability (more transitions).

Finally, population size and density are also important resources for social movements. McCarthy et al (1988, page 74) argue that "The larger the population of a community, the more likely that any kind of organization will form, other things being equal." Also, geographical concentration tends to facilitate social movement recruitment (McAdam et al, 1988). Therefore, community currency systems are expected to be more successful in larger cities and in more densely populated cities.[(2)]

[(2)] Population size and density will not be included in the first analysis that seeks to determine whether the cities where community currency systems appear differ from the USA as a whole.

Specific environmental conduciveness

In addition to general social movement resources, specific factors relating to the need for community currency systems within particular cities will be tested. Local currencies originated as a means to empower the economically marginalized. Low-income areas with high rates of poverty and unemployment are in greater *need* of community currencies. Thus, community currency systems are expected to emerge and be more successful in cities characterized by greater economic marginality.

Local currencies are alternatives that operate outside of the mainstream economy. Cities with large self-employment sectors and more residents out of the labor force are likely to be more environmentally conducive for community currency systems. That is, in these areas, more of the population is already somewhat independent from the mainstream economy. Therefore, local currencies are expected to emerge and thrive in cities characterized by greater labor-market independence.

Data and methods

Data collection for this project began in early 2003. The first task was to identify all of the local currency systems using printed money in the United States. The "Hour model" was originated in 1991 with the launch of Ithaca Hours in Ithaca, New York. Extensive Internet searches were conducted in an effort to identify all of the systems following the Hour model. Key terms such as 'community currency' and 'local currency' were entered into several different Internet search engines.

Seven different directories of US community currency systems using the Hour model were eventually discovered. One of these is a public database ("Project LETS") in which anyone can input information pertaining to a local currency system (see http://lentils.imagineis.com/letslist/). The E F Schumacher Society, an educational nonprofit organization devoted to decentralism, maintains its own directory (see http://www.smallisbeautiful.org/local_currencies.html). The Progress Report, an independent daily news source published by the nonprofit Benjamin Banneker Center for Economic Justice and Progress, also has a list (see http://www.progress.org/archive/currency.htm). The websites of three community currency systems (including Ithaca Hours at http://www.ithacahours.com/otherhours.html) also provide directories of other systems. An antiglobalization activist maintains an international directory of community currency systems (see http://www.cyberclass.net/turmel/urlsnat.htm).

Although there is considerable overlap and none of the directories is complete, each contained unique listings. Internet searches and contact with system coordinators also resulted in the identification of several systems that do not appear in any of the directories. Listings from the seven directories were merged into one database. The directories typically contain the system name, the system website (if one exists), and contact information for the system coordinators.

There were two primary goals in this phase of the data collection. First, to identify every community currency system using printed money that has been attempted in the United States since 1991. Second, to determine whether or not the currency system was operational at the end of the data-collection period (May 2004). The constructed database identifies eighty-two local currency systems in eighty US cities. Nineteen of these systems currently have active websites. Nine of these had been recently updated (indicated by dates at the bottom of the page or by announcements of events occurring in the future) and these currency systems were therefore considered operational. Contact was attempted with coordinators from the remaining seventy-three systems. First, contact by electronic mail was attempted. In the cases when this was unsuccessful (messages returned as 'undeliverable' or no response after several weeks), telephone contact was attempted. If telephone contact was unsuccessful (disconnected numbers

or wrong numbers), contact by postal mail was attempted. An introductory letter and a short survey were mailed along with a self-addressed stamped envelope. If contact by mail was unsuccessful (letter returned as 'undeliverable'), then it was assumed that the system is not currently operational as there is no evidence indicating that it is.[3] Of the eighty-two identified systems, only seventeen (20.7%) were still operating. The appendix provides the name, city, state, and website (if available)[4] of the seventeen active and sixty-five inactive US community currency systems.

The next phase of data collection concerned the gathering of population characteristics of the cities in which US community currency systems have been attempted. US Census Bureau 2000 data were employed as the source for the indicators of environmental conduciveness. There are two substantial limitations to this data. First, the units of analysis in this study are cities (defined by the Census simply as an 'incorporated place'). However, local currencies do not always cover an entire city. Participants may be concentrated in a portion of the city or they may span several adjacent cities. Therefore, there is a chance that the population characteristics of the area covered by each particular Hour system may be different than the population characteristics of their city as a whole. The other limitation of these cross-sectional data is that they do not represent the exact time of the founding of most of the eighty-two systems. Indeed, only 5.8% of the systems were started in 2000. The height of the movement was in the mid-1990s: 69.3% of Hours systems were started between 1994 and 1998. So, the data source from which the indicators of environmental conduciveness are drawn is imperfect. Nonetheless, it would be impossible to collect population characteristics of eighty-two areas in the USA for the specific year during which each system was started. Census data are regularly used for similar research purposes and are widely recognized for their high quality and coverage.

Representing the hypotheses presented above, the following fifteen indicators were gathered from the Census American FactFinder website (at http://factfinder.census.gov) for each of the eighty cities in which community currency systems have been attempted[5]: (1) median age, (2) percentage of the population 25 years and older with bachelor's, graduate, or professional degrees, (3) percentage of the population enrolled in college undergraduate or graduate programs, (4) percentage of the population identifying as white, (5) percentage of the population that is married, (6) percentage of housing units that are owner-occupied, (7) percentage of residents living in the same dwelling as in 1995, (8) percentage of the population who were born in their current state of residence, (9) population size, (10) population density—number of people per square mile,

[3] Internet searches of the name of the systems that were not contactable were also conducted. In several cases information (usually local news articles) was found indicating that the systems were no longer functioning. It is crucial that community currency systems have valid contact information. If prospective members cannot reach administrators, there is no way for them to become involved. In the end, although it is an assumption that those systems for which no information is available are no longer operating, it seems to be a very safe assumption. The vast majority of the contacted systems are not operating and most of the administrators expressed a sense that the movement as a whole is dying.

[4] There are eight systems that are not currently operating that have websites. Many of these coordinators indicated during contact that they chose to leave their sites online for 'archival' or 'historical' purposes.

[5] Census data were not available for Garberville, California. Therefore, data were collected for the adjacent city: Redway, California. Lopez Island, Washington data were also unavailable. Data from its county (San Juan) were collected instead. Data for three of the variables (percentage college students, percentage married, and percentage native to state) were unavailable for two cities (Chesterfield, New Hampshire, and Hardwick, Vermont). County-level indicators were employed in these instances. No bias results from using these replacement data—findings were the same as in the test models in which they were excluded.

(11) median family income, (12) percentage of families below the poverty level in 1999, (13) percentage of the population 16 years and older that is unemployed, (14) percentage of the employed civilian population 16 years and older that is self-employed, and (15) percent of the population 16 years and older that is not in the labor force.

The first analysis attempts to determine whether the populations of the eighty cities where community currency systems appear differ from the US population as a whole. One-sample *t*-tests are computed to test these differences in respect to: age, education, race, marital status, homeownership, residential stability, income, poverty, unemployment, self-employment, and non-labor-market participation.

The second analysis attempts to identify the determinants of successful community currency systems. Do they thrive in certain environments? Independent-samples *t*-tests are computed to compare the mean scores (on the fifteen indicators described above) of the populations from the active community currency cities to the cities where there are inactive systems.[6] Three of the active systems had been operating for less than 12 months at the time of the analysis. Therefore, to avoid any 'newness' bias, these three systems are excluded from the survival analysis. This reduces the population size in this analysis to seventy-nine cases. Two cities (Arcata and Berkeley, California) have each attempted two separate local currencies. The second Arcata case was dropped as one of the three new cases. Both Berkeley systems have failed, so one of these cases was dropped from the analysis so that the environmental characteristics of Berkeley would not be counted twice, biasing the data. Therefore, seventy-eight cities are used in the survival analysis.

Findings

To begin, the regions in which community currency systems have been attempted are described. Figure 1 plots the locations of the eighty US cities in which the eighty-two local currency systems using printed money occur.[7] California is the state housing the largest number of systems. Fourteen systems in twelve different cities have been attempted there (mostly in northern California). Yet only one California system is currently operating (indicated by a white dot inside of the star). All three of the

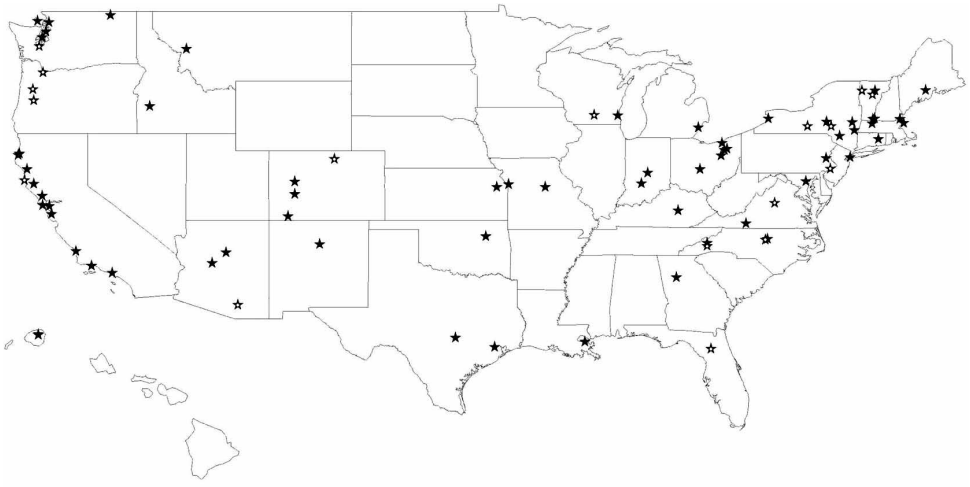

Figure 1. US map of eighty cities in which community currency systems using printed money have been attempted (currently active systems symbolized with white dots).

[6] Several multivariate logistic regression models were also estimated. However, given problems with the small population size and substantial multicollinearity, bivariate results are relied upon here.

[7] A larger version of the map is available at: http://www.usm.maine.edu/~collom/cc.html

attempted systems in Oregon are active. There is also a clustering of attempted systems in the Northeast. Overall, 'middle' America (the Midwest and the South) has the fewest cities attempting community currency systems.

Table 1 provides more detail by classifying the eighty-two systems into the standard US Census regions. The percentage of systems that are currently operational in each region is also provided. More than 40% of all of the systems have been attempted in the West. Systems started in the West have the same survival rate as the total population: 20% of those in the Mountain region and 20.8% of those in the Pacific region are currently active. The Midwest, the region containing the fewest systems, appears to be the least successful place to host community currency. None of the systems in the West North Central region and only 10% of those in the East North Central Region are still operating.

Table 1. Region of attempted US community currency systems by status.

		Number	Percentage of total	Percentage active
Northeast	New England	10	12.2	20.0
	Middle Atlantic	10	12.2	30.0
Midwest	East North Central	10	12.2	10.0
	West North Central	3	3.7	0.0
South	South Atlantic	10	12.2	40.0
	East South Central	1	1.2	0.0
	West South Central	4	4.9	0.0
West	Mountain	10	12.2	20.0
	Pacific	24	29.3	20.8
Total		82	100.0	20.7

The results concerning whether the populations of cities where community currency systems appear differ from the USA as a whole are presented next. Table 2 presents descriptive statistics for the indicators of environmental conduciveness as well as the one-sample *t*-test results. The average median age of residents in cities in which community currencies have been attempted is 33.49 years. The range is 22 to 48.4 years. In these cities 31.94% of the adults aged 25 years and older hold some form of higher education degree. On average, 13.61% of these residents are college students. The race variable indicates that one of these cities (Detroit, Michigan) has only 12.3% white residents whereas two others have 98.1% white residents.

Overall, the cities in which local currencies have been attempted are quite heterogeneous. The greatest variance occurs within population size, population density, percentage unemployed, and percentage self-employed. Systems have been attempted in very small places (Floyd, Virginia with 432 residents) and in very large cities (Brooklyn, New York with 2465 330 residents). These cities range from having an average of 47.8 residents per square mile to 34 916.6 residents per square mile. Unemployment rates vary from 0.4% to 18.6% and the self-employed sector ranges from 2.3% to 34% in these cities.

One-sample *t*-tests were conducted to determine whether the populations of the cities in which local currencies emerge have more general social movement resources and greater economic marginality and labor-market independence than the USA as a whole. The thirteen environmental conduciveness indicators (population size and density are excluded here) are tested against US population parameters. Table 2 indicates that community currency cities are statistically different from the USA on eleven of the thirteen characteristics tested.

The general social movement resource findings are presented first. As predicted earlier, cities with local currencies have residents who are significantly younger than the

Table 2. Descriptive statistics and one-sample *t*-test results (United States versus eighty cities).

	US population	Mean of 80 cities	Standard deviation	Minimum	Maximum
Median age	35.30	33.49**	5.88	22.00	48.40
Higher degree	24.40	31.94***	14.52	7.20	74.40
Percentage college students	6.21	13.61***	12.64	0.93	57.76
Percentage white	75.10	77.11	19.34	12.30	98.10
Percentage married	54.40	43.83***	8.46	23.40	65.40
Percentage owners	66.20	51.88***	11.42	26.00	84.00
Percentage stable residents	54.10	46.24***	10.20	19.40	64.30
Percentage native to state	60.00	55.34**	14.72	17.10	87.40
Total population		209 641.31	418 336.33	432.00	2 465 330.00
Population density		3 298.37	4 266.04	47.80	34 916.60
Household income	50 046.00	47 006.01*	12 831.23	30 286.00	117 574.00
Percentage in poverty	9.20	11.49***	5.31	3.00	29.30
Percentage unemployed	3.70	4.36**	2.34	0.40	18.60
Percentage self-employed	6.60	8.06*	5.29	2.30	34.00
Percentage not in labor market	36.10	35.79	5.72	24.90	51.90

$N = 80$
*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

US population. Also, education is important as hypothesized. Residents in community currency cities have greater educational attainment and more college students. The *t*-test for the race variable is not significant. Cities in which local currencies emerge have no more nor less people of color residing within them on average. Marital status has the anticipated effect: community currency cities have a lower percentage of married residents. The homeownership rate of cities with community currencies does differ from the USA. As hypothesized, these cities have fewer homeowners on average. The residential stability finding is also in the anticipated direction. Cities in which community currencies emerge have less stable populations (their residents move more often) and have fewer people who are native to the state in which they live.

Now the economic marginality and labor-market independence indicators can be considered. As hypothesized, the average household income is lower in cities in which community currency systems emerge. Also, the percentage of residents in poverty and the percentage unemployed is higher than the US rates. Therefore, these cities are more economically marginalized. As predicted, the self-employed sector is larger in cities in which local currencies emerge than in the USA as a whole. Finally, the percentage of residents who are not labor-market participants is not statistically different.

The final analysis seeks to determine whether those community currency systems in more conducive social environments are more likely to survive. Table 3 (over) presents the independent-samples *t*-tests comparing the fourteen active (currently operating) systems versus the sixty-four inactive systems on the ten indicators of general social movement resources.

Four of the eight general social movement resource indicators affect the likelihood of survival. First, as predicted, community currency cities with younger populations are more likely to be successful. Also, cities with more educated populations and those with more college students are more likely to have active local currencies. As in the previous analysis, race is not statistically significant. Marital status differs between the cities with active and the cities with inactive local currencies. As expected, the active systems tend to be in cities with fewer married people. Homeownership does

Table 3. Independent-samples *t*-test results: general social movement resources and status of seventy-eight systems.

	Active system	Number	Mean	Standard deviation
Median age	no	64	34.27	5.70
	yes	14	30.11*	5.88
Higher degree	no	64	29.49	13.78
	yes	14	41.36**	14.46
Percentage college students	no	64	11.27	10.80
	yes	14	24.13***	15.94
Percentage white	no	64	76.47	20.70
	yes	14	78.58	13.24
Percentage married	no	64	44.83	8.51
	yes	14	38.86*	7.15
Percentage owners	no	64	52.77	11.94
	yes	14	47.58	8.74
Percentage stable residents	no	64	48.01	9.58
	yes	14	39.45**	10.38
Percentage native to state	no	64	56.94	14.92
	yes	14	50.15	12.64
Total population	no	64	208 342.14	429 877.63
	yes	14	234 017.29	405 605.82
Population density	no	64	3 244.77	4 637.99
	yes	14	3 650.79	2 472.75

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

not significantly vary between the two different city types. The residential stability hypothesis is supported by one of the indicators. Although nativity to one's state is not significant here, cities with active systems do have less stable residential populations. Population size and density are not statistically different in cities with active versus inactive local currencies.

Now, specific environmental conduciveness—economic marginality and labor-market independence—can be considered. As evident in table 4, none of the previously stated hypotheses is supported here. The populations of cities with active local currencies do not differ from those with inactive systems in respect to income, poverty, unemployment, self-employment, or labor-market participation. In the following section the findings are discussed more substantively.

Table 4. Independent-samples *t*-test results: specific environmental conduciveness and system status.

	Active system	Number	Mean	Standard deviation
Household income	no	64	46 452.11	13 551.74
	yes	14	48 148.43	9 591.68
Percentage in poverty	no	64	11.77	5.62
	yes	14	10.96	3.62
Percentage unemployed	no	64	4.26	1.80
	yes	14	4.94	4.13
Percentage self-employed	no	64	8.53	5.78
	yes	14	6.14	1.52
Percentage not in labor market	no	64	35.68	5.81
	yes	14	37.13	5.22

Discussion

The Pacific region (particularly northern California) and the Northeast are where more than half of all of the US local currency systems using printed money have been attempted (see figure 1 and table 1). Overall, these areas are more liberal or progressive than the rest of the USA[8] These regions are apparently more 'culturally conducive' for such local economic alternatives. The Middle Atlantic (New Jersey, New York, and Pennsylvania) and South Atlantic (Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia) regions have the highest survival rate. One quarter of all systems have been attempted in these two regions. Perhaps there is some spatial advantage to being near other systems. Activist networks may overlap and these local movements are likely to have more contact with their nearby peers than with other systems. Actors in dense multiorganizational fields are more likely to learn from one another about the pitfalls to avoid in community currency. Such a spatial advantage may also help to explain why the state of Oregon has a 100% survival rate.

The descriptive statistics in table 2 indicate that the cities in which community currency systems emerge are quite heterogeneous. This is not surprising. A handful of resourceful activists can launch a local currency anywhere. Nonetheless, the one-sample *t*-tests illustrate, unambiguously, that the populations of cities where community currencies are attempted are different from the USA as a whole. The evidence indicates that these cities are more environmentally conducive for local currency movements.

General social movement resources and specific needs—economic marginality and labor-market independence—are equally relevant for the emergence of community currency systems. As social movement theorists argue, population age, educational attainment, marital status, homeownership rates, and residential stability are all important resources for the emergence of local currencies. These characteristics make cities more environmentally conducive for social movements as greater proportions of these populations are more likely to be willing and able to participate.

Neediness is just as relevant at the city level. A primary goal of community currency is economic empowerment. Cities in which local currencies emerge are more likely to be economically marginal and have larger self-employed sectors. Only the labor-market-participation hypothesis received no support in this analysis. The fact that community currency systems emerge in poorer cities with greater unemployment indicates that need is playing a role in the founding of these alternative economies.

Overall, environmental conduciveness is apparently more important for community currency system emergence than it is for survival. Although both general and specific factors are relevant for emergence, only the general social movement resources play a role in local currency survival. Community currency systems are more likely to remain operational in cities with younger populations, more educated and college-attending residents, fewer married people, and more mobile residents.

It is interesting that there is not a population size or density effect upon survival. It is the mix of the population that counts. In large cities the youth and the educated certainly outnumber their counterparts in small places. Yet it tends to be where there are relatively more young people and relatively more educated people within a city's population that community currencies survive. This suggests that the population mix of the places in which local currency systems are attempted influences recruitment and

[8] The results of three US presidential elections (1992, 1996, and 2000) serve as a good indicator. With the exception of the state of Alaska, the majority of voters in the Pacific region (also including California, Hawaii, Oregon, and Washington) voted for the Democratic Party candidate (Clinton in 1992 and 1996, Gore in 2000). With the exception of New Hampshire in 2000, the majority of voters in the Northeast region (also including Connecticut, Maine, Massachusetts, Rhode Island, Vermont, New Jersey, New York, and Pennsylvania) voted for the Democrat.

retention processes. Although this implication cannot be further pursued with the data at hand, it may be worthwhile for future social movement studies to investigate. The findings here do indicate a more specific suggestion: the biographical availability of the participants (McAdam, 1986) apparently plays an important role in the survival of community currency. The youth, college students, the unmarried, and the transitional have greater discretionary time and face fewer countervailing forces that may hinder participation in this movement.

Specific needs within the city are not significant for local currency success. Systems in more needy areas are just as likely to perish as those in less needy areas. Community currency systems rely heavily on volunteers to coordinate the systems and participants to exchange the currency regularly. Ironically, the communities in most need may be the least able to afford participation in these movements. After the initial founding, participants in more economically marginal cities may become disenfranchised from the movement. The higher the aspirations and the more urgent the needs are to begin with, the more likely it is that these local alternative economies will be dismissed. Community currency is not a cure-all and participants would find it extremely difficult (if not impossible) to become self-sufficient within one of these 'closed economies'. As resource mobilization theory suggests (see McCarthy and Zald 1977), resource-rich social movements are more likely to be successful than those waged by the needy. This is a fundamental dilemma of social movements—the most deprived often lack the resources to maintain engagement (see also McAdam et al, 1988).

Conclusion

From 1991 to 2004, eighty-two community currency systems using printed money were attempted in the United States. This is a nontrivial movement to which the US social science community has paid little attention. This study has attempted to determine within which types of environments local currencies emerge and survive. The environmental conduciveness arguments put forth here have received considerable support. General social movement resources are important for both local currency emergence and survival. Specific needs—economic marginality and self-employment—are important in characterizing the cities in which community currencies are attempted.

A larger issue, not yet addressed here, concerns the failure rate. Only 20.7% (17 out of 82) of the attempted US local currencies were operational as of May 2004. This is a high mortality rate for a rather new social movement. Even Ithaca Hours, the 'early riser' (see Tarrow, 1998) and leader, is in decline (Jacob et al, 2004b). Although I am pursuing the specific organizational determinants of local currency success in ongoing research, interviews with system administrators clearly indicate that US community currency systems face two common problems. First, leadership burnout is frequent and these systems are having a difficult time recruiting volunteers to invest the substantial time required to administrate these alternative economies. Second, participant recruitment is equally problematic. Most administrators state that recruiting and maintaining active participant engagement in these systems is very difficult. There appears to be a 'novelty effect' as new people join—they engage a bit, then become inactive. However, local currencies must continuously circulate in order to be efficacious. In his analyses of LETS, Williams (1996a; 1996c; 1997) identifies the same problem and finds that systems need to recruit and maintain a 'critical mass' of at least fifty active members to survive.

At this point, the ability of US printed community currencies to empower the most economically marginalized and to revitalize low-income regions appears limited. In order to be more effective in meeting its primary goals, more systems must survive and serve as positive examples to other communities. The evidence gathered in this research would suggest targeting the youth and the educated for participation in

these systems. Although these groups have not historically been very deprived, the young and the educated are more likely to participate in social movements generally, given their biographical availability and sense of efficacy (see Dalton, 2002; Flacks, 1971; McAdam, 1986). The findings also suggest the possibility of a spatial advantage as currency systems that are relatively close to other systems have a greater survival rate. Community currency activists may consider targeting specific areas in order to tap into existing social networks and prior activism experience.

The issues surrounding community currency are important public policy matters. Yet in the USA, community currency activists and policymakers do not appear to be in dialogue with one another. Although this is an *alternative* social movement, local currency advocates should seek external political allies. This has been crucial for the success of many oppositional social movements (Tarrow, 1998; Whittier, 2004). Although community currencies are grassroots efforts, these local activists may consider establishing some form of national representation. A larger umbrella unit could put a face on and promote the movement as a whole. US policymakers may be able to assist activists in recruiting unemployed, underemployed, and/or low-income participants and in building and supporting these local economies in poor areas as they have elsewhere (Williams, 1997).

Indeed, this could be a 'win – win' situation as policymakers stand to gain from the success of community currency. Local currencies could complement social welfare policy as they may directly ameliorate unemployment and underemployment problems. Moreover, community currency should interest policymakers as it may serve as a bridge into formal employment. Participants in these local economies often acquire new work skills as well as an important boost in their self-confidence (Williams et al, 2001a). In addition to these economic benefits, let us not forget that local currencies (and Hours in particular) have been most successful in building social capital – fostering friendships and community connections (Jacob et al, 2004b). Though community currency emerged as an alternative to global capitalism, many of its core values and its communitarianism resonate with people from a variety of political backgrounds.

Considering the community currency movement as a whole, it is evident that LETS and Hours systems have been less successful in surviving than Time Banks. In the USA, Time Dollars originated eight years before Ithaca Hours and there are four times as many active Time Banks today as Hours systems. The impressive growth of Time Banks UK also suggests that this model is more efficacious. The success of Time Banks is at least partially attributable to the fact that they tend to formally employ staff (paid in the national currency) to broker exchanges and they tend to be based in mainstream agencies (Cahn, 2000; Seyfang, 2004). Participants in Time Banks differ from those in LETS and Hours systems too. Although the latter are favored by the educated and alternative (that is, countercultural greens and anticapitalists), Time Banks tend to be used more by the elderly and the poor. Although all of these efforts can be considered community currencies, it is clear that there are substantial differences in the actual practices.

In conclusion, the limitations of the research presented here should be stressed. This is a macro analysis concerning environmental conduciveness for a local, grassroots movement. Most social movement 'action' occurs at the mesolevel and microlevel with mobilization and recruitment (Klandermans, 1997). Future research on community currency in the USA should center on coordinator and participant interviews and/or surveys. This study is also limited by the data source of the environmental variables. Although census data are reliable, their infrequent collection and lack of many desirable indicators hinder its utility in this form of research. Tests of environmental conduciveness for social movement mobilization should be performed on a variety of movements with a variety of data sources.

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Appendix

Table A1. The 17 active US community currency systems using printed money (as of May 2004).

System name	City	State	Internet URL
Tucson Traders	Tucson	AZ	
Humboldt Exchange (formerly Humboldt Exposure)	Arcata	CA	
Northern Colorado Local Currency and Barter Project	Fort Collins	CO	http://www.fortnet.org/nclcbp/
Gainesville Barter Network	Gainesville	FL	http://www.palmstone.com/barter/index.html
Earthaven Leaps	Asheville	NC	
NCPlenty, Inc.	Chapel Hill	NC	http://www.ncplenty.org/
Ithaca Hours	Ithaca	NY	http://www.ithacahours.com/
Oneonta Hours	Oneonta	NY	
Corfvallis Hours	Corvallis	OR	http://www.hourexchange.org/
Emerald Ecos	Eugene	OR	
Cascadia Hour Exchange	Portland	OR	http://www.cascadiahourexchange.com/
Equal Dollars	Philadelphia	PA	http://www.rhd.org/equal.html
Charlottesville Barter Network	Charlottesville	VA	http://www.tradelocal.org/barter/index.htm
Burlington Currency Project	Burlington	VT	http://www.burlingtoncurrency.org/
Green Mountain Hours	Montpelier	VT	http://www.greenmountainhours.org/
OlyBarter Network (formerly Sound Exchange)	Olympia	WA	
Madison Hours	Madison	WI	http://www.madisonhours.org/

Appendix

Table A2. The 65 inactive US community currency systems that used printed money (as of May 2004).

System name	City	State	Internet URL
Flagstaff Neighbor Notes	Flagstaff	AZ	http://www.flagteaparty.org/Subjects/FNN/FNN_Home.html
High Desert Dollars	Prescott	AZ	
Humboldt Local Currency Project	Arcata	CA	
Berkeley Barter Network	Berkeley	CA	
Berkeley Bread	Berkeley	CA	
Sand Dollars	Bolinas	CA	
Humboldt Hours	Eureka	CA	
Mendocino SEED	Fort Bragg	CA	
Sequoia Hours	Garberville	CA	
Area Bucks	Palo Alto	CA	
Santa Barbara Hours	Santa Barbara	CA	
San Luis Obispo Hours	San Luis Obispo	CA	
Santa Monica Hours	Santa Monica	CA	
Sonoma County Community Cash	Santa Rosa	CA	
Ukiah Hours	Ukiah	CA	http://www.greenmac.com/hours/
Carbondale Spuds	Carbondale	CO	
Community Cash	Durango	CO	
North Fork Helping Hands	Paonia	CO	
Thread City Bread	Willimantic	CT	
Atlanta Hours	Atlanta	GA	
Kauai Barter and Trade Network	Kilauea	HI	http://www.realkauai.net/Barter/Coconut.php
Boise Hours	Boise	ID	
BloomingHours	Bloomington	IN	http://www.bloomington.in.us/~blmghour/
Barter Bucks	Indianapolis	IN	
REAL Dollars	Lawrence	KS	http://lto.lawrence.ks.us/
Berea Bucks	Berea	KY	
Mo'Money	New Orleans	LA	http://members.aol.com/ALinNOLA/MoMoney.html
Amesbury Hours	Amesbury	MA	
Cape Anne Dollars	Gloucester	MA	
Valley Dollars	Greenfield	MA	
Baltimore Hours	Baltimore	MD	http://www.geocities.com/baltimorehours/
P.E.N. Neighborhood Exchange	Takoma Park	MD	
Waldo Hours	Unity	ME	

Appendix

Table A2 (continued).

System name	City	State	Internet URL
Great Lakes Hours	Detroit	MI	
Columbia Hours	Columbia	MO	
Kansas City Barter Bucks	Kansas City	MO	
Missoula Hours	Missoula	MT	
Bull City Bucks	Durham	NC	
Mountain Money	Mars Hill	NC	http://www.main.nc.us/BarterNetwork/
Brattleboro Hours	Chesterfield	NH	
Santa Fe Hours	Santa Fe	NM	
Capitol Area Self-Sustaining Hours	Albany	NY	
Brooklyn Greenbacks	Brooklyn	NY	
Buffalo Hours	Buffalo	NY	
Stoneridge Hours	Kerhonkson	NY	
Columbia County Hours	Philmont	NY	
Chenango Hours	New Berlin	NY	
Summit Hours	Akron	OH	
Wooster Hours	Apple Creek	OH	
Cuyahoga Hours	Cleveland	OH	
Simply Hours	Columbus	OH	
Portage Hours	Kent	OH	
Tulsa Hours	Tulsa	OK	
Lehigh Valley Barter Hours	Bethlehem	PA	
Dillo Hours	Austin	TX	
Houston Hours	Houston	TX	
Floyd Hours	Floyd	VA	
Blue Money	Brattleboro	VT	
Buffalo Mountain Hours	Hardwick	VT	
Bainbridge Island Bucks	Bainbridge Island	WA	
Kitsap Hours	Bremerton	WA	
Kettle River Hours	Kettle Falls	WA	
Lopez Island Hours	Lopez Island	WA	
Skagit Dollars	Mount Vernon	WA	
Milwaukee Hours	Milwaukee	WI	