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The Size, Origins, and Character of Mongolia's Informal Sector During the Transition

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Abstract

The explosion of informal entrepreneurial activity during Mongolia's transition to a market economy represents one of the most visible signs of change in this expansive but sparsely populated Asian country. In an attempt to deepen our understanding of the informal sector during transition, this paper takes an eclectic approach, merging the anecdotal experience of numerous qualitative interviews with the hard data provided by a survey of 770 informals in Ulaanbaatar, by a national household survey, and by official employment statistics. The varied sources of data and information are used to generate rudimentary estimates of the magnitude and trends of informal activity in Mongolia, estimates that are surprisingly consistent with each other. The reasons for such rapid growth of informal activity attending the transition are then explored and evaluated. In a broader sense, this paper paints a portrait of the character of the informal sector in Mongolia: what it means to be informal, how informals perceive their employment status, the levels of incomes, the regulatory environment, the attitudes of officials toward the informal sector, the degree of coverage under social and health insurance, and the contribution of micro enterprise to the battle against poverty.

Preface

The research embodied in this report was undertaken in the winter and spring of 1997. Most of the interviews and informal sector surveys were conducted in February and March, and a first draft of the report followed soon thereafter. But one learns quickly in Mongolia that while the pace of change can be exasperatingly slow at times, it can be breathtakingly rapid at other times. The spring of 1997 fell in the latter category. In only a few months, there have been significant changes with regard to policies that impact on the informal sector. Many kiosks and garages were summarily moved by order of the city administration, customs duties have been largely abolished, vehicles taxes were increased, and the principal tax legislation affecting informals was revised. The revisions of the "Informal Sector Income Tax Law" in the late spring of 1997 led to controversy, popular revolt, and an ultimate policy reversal, a sequence of events that provides important lessons about the diversity of experience within Mongolia's informal sector, lessons that must be understood if future policy mistakes are to be avoided. The changes in the "Informal Sector Income Tax Law" will therefore provide the lone exception to the rule that this report will reference the policies in place at that time the surveys and interviews were conducted, March 1997.

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1. Overview

1. Mongolia has experienced radical changes in the 1990s, changes that have altered the mechanisms that determine what is produced, by whom and at what price. There has been a withdrawal of traditional trading partners, the forms and legal protections of property ownership have changed, as have the methods of organizing productive resources, the distribution system has become primarily market driven as central planning has been abandoned and retail prices largely decontrolled. Concurrent with these changes has been a time of declining production, rapid inflation and falling living standards for much of the population.

2. These changes have manifested themselves in many ways that are evident to the casual observer. The number of automobiles in the nation's capital has soared with the freedom to own property. The greater acceptance of private commerce has led to growth in the size and popularity of Ulaanbaatar's "black" market and many other outdoor areas. Small kiosks have popped up around the city providing basic non-perishable consumer goods to the residents, and a number of enterprises have emerged whose main function is to provide a physical or organizational structure allowing smaller entrepreneurs to enter a line of work without great difficulty.

3. These are the findings of a study of Mongolia's informal sector. As the freedom to engage in such activities is new to Mongolia's citizens, the informal sector, *per se*, has received little attention in terms of data collection and analysis.[1] Appropriate for an initial exploration of the topic, this study will take an eclectic view, piecing together information from a wide variety of sources, using a wide variety of techniques to draw inferences and conclusions. The goal of the study is to examine the trends and current size of the informal sector; the reasons for growth of informality; the legal and regulatory environment faced by informals; the approach to the informal economy taken by officials. In the process, we will also gain an understanding of how Mongolia's citizenry has reacted to the crisis of the 1990s, how micro-enterprise can contribute to poverty alleviation, and how informals are affected by policy. An understanding of these issues is crucial if policy makers are to understand how entrepreneurs respond to policy, if they are to understand the factors influencing the structure of the labor market, if they are to make sense of official statistics, and if they are to design policies that will recognize the potential for micro-enterprise in Mongolia.

4. What emerges is a portrait of the state of micro-enterprise in a transition country, an optimistic depiction of people following market signals and addressing society's needs, juxtaposed with sobering lessons on the direction in which policy is driving entrepreneurial energy. The image is of a sector that has become a part of every city-dweller's daily existence, yet is completely detached from formal finance; a highly productive segment of society in which poorer informals are taxed into poverty while the richer informals pay taxes that are trivial relative to their profitability; a sector whose existence is facilitated by formal sector companies following the signals of the market, making a business of facilitating informal activity, economizing on bottle-necks and bureaucracy. It is a portrait of the forces that are causing informal activity to grow to employ 30-35% of the capital city's work force. It is a portrait of how entrepreneurial energy, unhampered by barriers to entry, has helped 15% of Ulaanbaatar households to rise above poverty.

What Does It Mean to be "Informal" in Mongolia?

5. There are at least as many ways of defining the informal sector[2] as there are countries where it has been studied — every country has unique features and circumstances that make a universally accepted definition impossible.[3] And as the informal sector, *per se*, has never been studied in Mongolia, it would have been a mistake to impose an objective definition *a priori* for the Mongolian situation. Indeed, one purpose of this study was to shed light on the specific character of Mongolia's informal sector. Thus the working definition of the informal sector used at the outset of this research was chosen broadly: *The informal sector consists of small scale, usually family-based, economic activities that may be undercounted by official statistics, and may not be subject, in practice, to the same set of regulations and taxation as formal enterprises.* As it is extremely difficult to distinguish this concept of the informal sector from general micro-enterprise, the two were considered to be nearly interchangeable.

6. Seven hundred and seventy micro-entrepreneurs that seemed to fit this working definition were surveyed by the author in the first half of 1997. The sample included taxicab drivers, kiosks proprietors, boot repairmen, newspaper vendors, and many others. Table 1 illustrates how a selection of these occupations measure up to some popular criteria for judging informality, such as the degree to which they are subject to, and comply with, official registrations, laws, and taxes; the effective incomes of participants; the division between capital and labor; the sophistication of record-keeping; the relative ease with which the occupation could be incorporated into national accounts statistics; the "permanence" of the place of business; and participation in social and health insurance schemes.[4]

7. Table 1 highlights the diversity of experience of Mongolia's micro-entrepreneurs. By most of the criteria, all of the activities listed have the characteristics of informality. They are all over-whelmingly family-owned concerns, many are not covered by social or health insurance, most (with the exception of kiosks) do not keep written records, and very few even consider themselves "employed." They are not currently reflected in national accounts statistics in any explicit way, owing to the very nature of the activities and the general lack of formal financial statements.[5] They have few if any enforceable rights over their places of doing business, none are currently required to register as economic entities distinguishable from their owners, and all are required to pay flat monthly taxes rather than the income-based tax outlined in the *Economic Entities Income Tax Law*. This last criterion is perhaps the most useful objective yardstick by which to measure informality in Mongolia. The explosion of micro-enterprise in the early 1990s led the *Ih Hural*, in 1993, to pass the *Income Tax Law of the Citizen's Who Individually Engage in Business Activities and Services Whose Income Cannot Be Determined Every Time*. All of the activities described in this report are subject to this law which specifies 32 activities, ranging from taxicab driving to traditional medical healing to shoe shining, for which small scale and unsophisticated record keeping make it difficult to calculate income. This law is the single best objective identifier of informality, and it is also the single most important piece of legislation governing the lives of Mongolian informals. We will refer to this law frequently in the course of this report, and for the sake of brevity we will refer to it as the *Informal Sector Income Tax Law*.

Table 1. Degrees of Informality

	Formal Sector Enterprises	Taxicabs	Kiosks	Boot repair ("black market" and street)	Selling used parts/tools (tech. mkt)	Selling individual cigarettes, soft-drinks or chewing gum (street)
Registration as an organization required	yes. companies and partnerships must register by law	no	no	no	no	no
Registration with tax authorities required	yes	yes	yes	yes	yes	yes
Percentage registered with tax authorities	~ *100%*	74% of full-time drivers, 20% of part-time drivers	100%	63%	31%	0%
Percentage paying more tax under the *Informal Sector Income Tax* than they would under the *Citizen's Income Tax / Economic Entities Income Tax*	0% 0%	7% 5%	76% 48%	0% 0%	69% 31%	60% 4%
Other registrations required	many, depending on the nature of the activity	all registrations associated with vehicles. permission for inter-aimag travel	permission for land use	none	none	none
Applicable regulations	many, depending on the nature of the activity	technical inspections	city health and sanitation regulations	none	none	none
Governed by provisions of the *Labor Law*	yes	no	no	no	no	no

Source: Informal sector surveys conducted by the author.
* excludes moonlighters; items in italics are reasonable *a priori* assumptions.

Table 1. Degrees of Informality (continued)

	Formal Sector Enterprises	Taxicabs	Kiosks	Boot repair ("black market" and street)	Selling used parts/tools (tech. mkt)	Selling individual cigarettes, soft-drinks or chewing gum (street)
Percent earning less than the legal minimum wage*†	*~ 0%*	0% of full-time drivers 36% of part-time drivers	4%	0%	17%	24%
Degree of moonlighting	na	17% of full-time drivers 72% of part-time drivers	32%	7%	24%	32%
Percent who consider themselves "employed"*	*~ 100%*	26%	16%	26%	8%	0%
Division between capital and labor	*very high*	low	low	none	none	none
Percentage non-family ownership	*~ 100%*	23%‡	12%	*0%*	*0%*	*0%*
"Permanent" place of business	yes	no	yes	no	no	no
Security of rights to premises & terms of premises use	high. owned or leased with high contractual rights	medium. mobile enterprises; however garages may be owned or leased with weak contractual rights¤	low. kiosks rent land from the city, no contractual rights.¤	none. daily occupation	none. __ daily occupation	none. daily occupation
Percent keeping written records*	*~ 100%*	27%	72%	7%	46%	8%
Relative ease of estimating aggregate value added	high	medium	medium	low	low	low

Source: Informal sector surveys conducted by the author.

* excludes moonlighters; † per full-time equivalent; ‡ applies to ownership of the vehicle — as many taxicab drivers use their employer's vehicles without their knowledge, the separation of labor and capital is overstated; ¤ the level of "contractual rights" ascribed to taxicabs and kiosks is based on the experience in the spring of 1997 when many garages and kiosks were summarily ordered to move; items in italics are reasonable *a priori* assumptions.

Table 1. Degrees of Informality (continued)

	Formal Sector Enterprises	Taxicabs	Kiosks	Boot repair ("black market" and street)	Selling used parts/tools (tech. mkt)	Selling individual cigarettes, soft-drinks or chewing gum (street)
Percent making contributions to health or social insurance from informal income*	*~ 100%*	51%	54%	37%	62%	24%
Percent covered by social insurance*	*~ 100%*	40%	34%	13%	18%	5%
Percent covered by health insurance*	*~ 100%*	51%	53%	36%	61%	24%
Mem: Percent of participants with vocational or higher education*	na	63%	60%	33%	46%	40%
Mem: Percentage Male/Female	na	95 / 5	39 / 61	93 / 7	85 / 15	20 / 80

Source: Informal sector surveys conducted by the author.
* excludes moonlighters; items in italics are reasonable *a priori* assumptions.

8. Now that we have introduced what it means to be informal in Mongolia, some other clarifications are in order. This study of the informal sector will address only activities that are, in and of themselves, legal. No attempt will be made to examine purely illegal activities, such as prostitution or gambling. This report will focus on monetized transactions. Household production for the purpose of consumption within the household will be excluded from the analysis. Although the informal sector for Mongolia as a whole will be discussed, the primary focus of the study will be the urban informal sector. Similarly, animal husbandry will not be addressed. This is certainly an important topic for Mongolia, and despite the coincidence of characteristics between the informal sector, as outlined above, and herding, the concurrent uniqueness of herding suggests a different form of analysis.

Sources of Information

9. Our eclectic approach to studying Mongolia's informal sector will make use of diverse sources of information: (i) Qualitative interviews were conducted with official statisticians, local tax officials, licensing officials, staff of unemployment agencies, academics, NGOs, and most importantly, participants in the informal economy. (ii) In order to provide some hard data on the informal sector, 770 informals were surveyed.[6] The sample included kiosks, taxicabs, "street informals" from different parts of Ulaanbaatar, and informals from three of the city's most popular outdoor markets, the "Black" Market, the Technical Market, and the *Harhorin* Market. These occupations provide contrast in terms of capital intensity, nature of competition, levels of income, and the degree to which the activity is suitable for moonlighting. Kiosks and taxicabs, chosen for their visibility and as representatives of two sectors in which there seemed to be much informal activity, were included in numbers large enough to estimate contribution to aggregate value added. (iii) Current sample surveys can tell much about the informal sector as it exists now, but tell little about the trends over time, or the aggregate impact of all informal activity. In an attempt to understand these issues, data compiled by the State Statistical Office (SSO), particularly employment statistics and the monthly household survey of income and expenditure, were analyzed. (iv) It is impossible to study the informal sector without addressing the legal environment faced by informals, and that faced by their formal counterparts.[7] Of particular interest to this study are the laws and regulations pertaining to taxation, to labor, and to social insurance.

Outline of the Report

10. In Section 2 we take up the question of the size of the informal sector and how it has grown in the 1990s. Mongolia's employment statistics reveal trends that can only plausibly be explained by expansion of the informal sector. At the same time, the SSO's Household Survey demonstrates the decline of the importance of formal income in the aggregate and for the average household. Monetary aggregates tell a complementary story of expansion of the segment of the economy transacting in currency rather than commercial banks, a segment that is described in the literature as the "hidden" economy. Each of these approaches and bodies of data, together with the informal sector surveys conducted by the author, will be used to generate estimates of the size of the informal sector. Despite the diversity of approaches, the estimates are surprisingly consistent, each suggesting that 30-35% of economic activity and/or employment resides in the informal sector. In Section 3 we will endeavor to explain the reasons for informal sector growth. Several contributors will be addressed, including the release of labor by traditional formal employers, the impact of rural-urban migration, the market's reallocation of labor to the service sector, and the relative ease of entry afforded informal activities. The greater ease of entry enjoyed by informals is generated by lower non-wage costs of labor, easier access to premises, simpler bureaucratic hurdles, and the ability to self-finance afforded to small scale activities — the greater ease of entry will be argued to be a necessary component of any explanation of informal sector growth. We will also examine the final result of these factors, incomes that are frequently higher in the informal sector than in the formal sector. Taxation of the formal and informal sector sectors will be discussed, and it will be shown that informals of average and high incomes generally pay less tax than formal employees with similar income, but due to the regressive nature of the system of taxation, poorer informals pay very large

amounts of tax relative to their incomes. In Section 4 we evaluate the sum of the knowledge presented by the study, and answer the question "what good is the informal sector?" Two appendices provide supplementary information. A narrative about Ulaanbaatar's distribution and transportation sectors, sectors in which informals play a large role, will be provided in Appendix A. The purpose of such a narrative is to provide the reader with a flavor for the informal activities of Ulaanbaatar: the manner in which factors of production are organized, the forms of "ownership," characteristics of participants, treatment by officials, the incomes generated, the level of competition, and the value added. Particular emphasis will be placed on kiosks and taxicabs, two informal occupations that were surveyed in large numbers for the purposes of this study. Appendix B contains the methodological detail related to the informal sector surveys conducted during this study, as well as tables with descriptive statistics derived from those surveys.

2. Observations on the Size of the Informal Sector

11. An understanding of the size of the informal sector, and the changes over time of the relative importance of informal activity in the economy, are essential for Mongolia's policy makers. The size of the informal sector has direct implications for policies aimed at alleviating poverty and forecasting insurance fund contributions, to name a few. The trends of informal sector growth also present policy makers with a view of how their policies are driving entrepreneurial energy. This section of the report will present analyses of several independent bodies of data providing information on the size of the informal sector and how it is changing during the transition period. First, employment in Ulaanbaatar's informal sector will be examined. It will be argued that official employment statistics unwittingly demonstrate rapid growth of the informal sector, and that roughly one third of the official labor force in Ulaanbaatar are engaged in informal activities. Second, the SSO's household survey data will be used to estimate the contribution of informal earnings to household income in Ulaanbaatar. Informal income has increased in importance during the transition and has come to dominate wage income for many households — nearly half have some informal income, and informal earnings make up about one third of aggregate household income in Ulaanbaatar. Third, a well-known technique for inferring the size of the "underground" economy from monetary aggregates will be employed. This technique suggests that for Mongolia as a whole, underground activity is in the neighborhood of 35% of officially recorded GDP. A summary will be provided at the end of this section.[8]

Employment in the Informal Sector

12. Mongolia's official employment statistics reveal much about the changing size of the informal sector, despite the fact that they were not designed to capture informal sector employment. Ironically, it is for precisely this reason that they tell so much. After a brief review of the labor market and the sources of employment data, this section will argue that the official statistics mask a large increase in informal sector participation, and the argument will be supported using the results of the informal sector sample surveys. The sample surveys will then be combined with elements of the official employment data to estimate that 105,000 to 130,000 people are engaged in the informal sector in Ulaanbaatar.

Background on Employment Statistics in Mongolia

13. Every *duureg/soum*[9] in Mongolia has an Employment Regulation Office[10] (ERO) which serves two functions: (i) distribution of unemployment benefits to officially registered unemployed people who meet the criteria laid out in the relevant laws; and (ii) employment broker, attempting to match unemployed people with job openings. Under the new law on unemployment benefits, which went into effect on January 1, 1995, an unemployed person may be eligible to collect unemployment benefits after having paid contributions to the unemployment insurance fund for at least two years — the new law thus became fully operational on January 1, 1997, after the new law had been in effect for two years.

14. Under the previous law, those eligible for unemployment benefits could collect 3 months wages from their former employer, via the ERO. Under the new law, employers and employees each make contributions of 0.5% of wages, to the social insurance fund.[11] Having made contributions for at least two years, a person who becomes unemployed can then collect benefits equal to 45-70% of the level of wages during their last three months of employment, depending on total years of service; unemployment benefits last until a new job is found, up to a maximum of 2 ½ months.[12]

15. The ERO also acts as an employment broker, trying to match the skills of registered unemployed people with the requests of enterprises. The ERO staff interviewed for this study reported that they frequently have difficulty matching the skills of the unemployed with the demands of employers. Employers typically request skilled labor, while only about half of registered unemployed have skills. Although unemployment benefits expire after 2 ½ months, there is no limit to how long an unemployed person may remain registered for the purposes of finding a new job, as long as they visit the ERO regularly — people who don't visit for more than three months are automatically dropped from the registry.

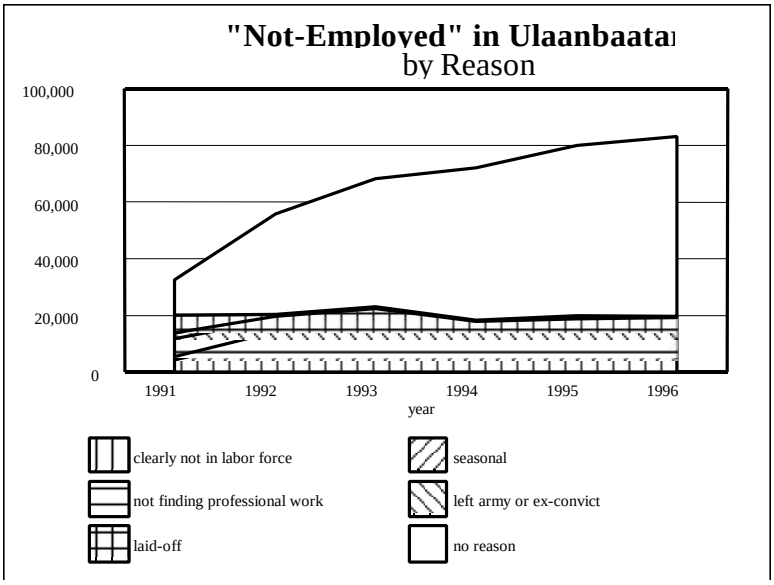

Figure 1 Source SSO

16. There are two sources of raw employment data that are used to compile employment statistics in Mongolia. The number of unemployed people is compiled monthly from surveys of the EROs, and therefore includes only the officially registered unemployed. The number of employed people is drawn from an annual census, called the Annual Labor Force Balance, conducted by each *duureg/soum*. This annual census enumerates the population, the number of able-bodied people of working age, and for those who are able-bodied and of working age but report that they are not employed, the annual census enumerates the reasons, placed into several categories. These categories do not permit a clear distinction between people who are unemployed and looking for work and those who are not in the labor force. For this reason, the able-bodied people of working age who report that they are not employed will be referred to, awkwardly, as the "not-employed."

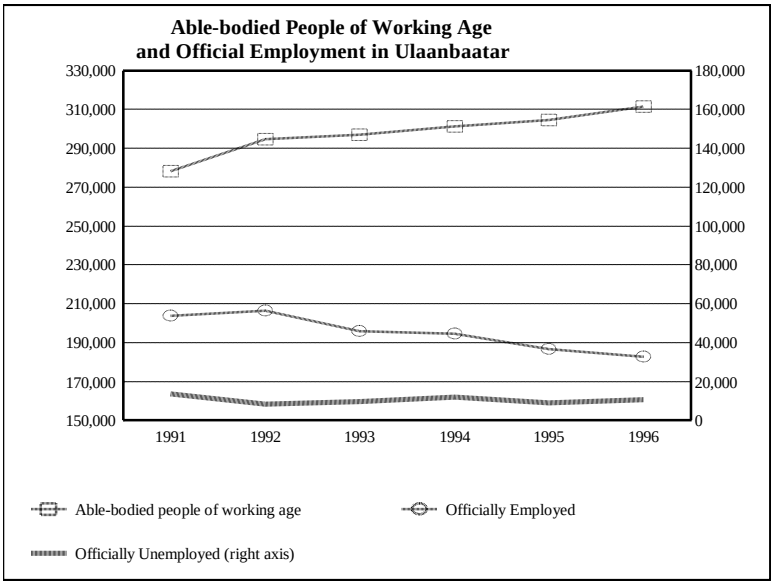

Figure 2 Source SSO

17. It is generally accepted in most transition countries that official unemployment registrations are not very good indicators of the actual level of unemployment,[13] and Mongolia is no different. Although someone who has recently lost a formal sector job would have incentive to register at the ERO, the incentive to remain registered declines rapidly as benefits expire.[14] Furthermore, those who haven't paid social insurance contributions for the requisite two years have even less incentive to register since they are not eligible for benefits.

18. It is important to understand the processes that generated the statistics on the following pages. Each *duureg/soum* questions each household about the characteristics of household members, including whether or not they have a job. If they are able-bodied, of working age, and report that they are not employed, the *duureg/soum* then asks the reason, providing several categories of responses. The final category is "other" which ultimately gets reflected in the Annual Labor Force Balance as "without any reason." Some of the other categories, such as "watching a child," can be inferred to indicate people who are not in the labor force, and in Figure 1 below, these categories have been grouped together as "clearly not in the labor force."

Trends in Employment inUlaanbaatar's Informal Sector

19. The number of the "not-employed," as well as the "reasons for being not-employed" are instructive in the trends that they display. Recognizing that informals often do not consider themselves "employed," an expansion of the informal sector serves as the best explanation for the observed trends in the Ulaanbaatar employment statistics. The informal sector surveys conducted during this study, and the household survey conducted by the SSO, add strong support to the key finding that *most Mongolian informals do not consider themselves employed, and are thus omitted from official statistics*. Some statistics on able-bodied people of working age, employment and "not-employment" are depicted graphically in Figure 1.

20. The changes over time are dramatic.[15] In only six years the number of able-bodied people of working age in Ulaanbaatar has grown by 12%. During the same period of time, the percentage reporting that they are employed has declined from 73% to 59%, and the percentage of the not-employed who do not provide a reason has grown from 38% in 1991 to 76% in 1996. Furthermore, the percentage of the not-employed that are registered at the labor exchange has fallen from 42% to 13%. The dramatic increase in the level of people "not-employed," coinciding with relatively low official unemployment rates, is suggestive of marked changes in the labor market that may be escaping the official statistics.

21. Figure 2 depicts the changes over time in the number of able-bodied people of working age, the level of official employment, and the level of official unemployment for Ulaanbaatar city.[16] At the same time that the level of employment has decreased, and the number of people not-employed in the annual censuses has increased, the number of registrations, upon which the official unemployment rate is calculated, have actually fallen slightly since 1991. Unemployment as registered at Ulaanbaatar's EROs stood at about 10,600 at the end of 1996, whereas the census of December 1996 counted 83,100 as not-employed, 63,400 of which "without any reason."[17]

22. The story being told by Mongolia's employment, unemployment, and not-employment statistics, is that a large portion of the able-bodied, working age, population (particularly in Ulaanbaatar) has fallen out of the calculations of official labor statistics, counted as neither employed nor unemployed. One may conjecture that many have simply left the labor force, leading to a precipitous decline in the labor force participation rate.[18] However, there is overwhelming corroborating evidence from the informal sector surveys conducted during this study, and from the household survey conducted by the SSO, that this is not the case.

23. Seven hundred and seventy informals were surveyed during the course of this study. The details of the surveys will be presented later, but a certain combination of questions are pertinent for the issue of how informals are reflected in official employment statistics. As reported in the literature on informal sector employment statistics (ILO, 1993) one reason that informals are often omitted from statistics is that they do not consider themselves to be "employed." Thus, a question was put on each of our informal sector surveys to closely mirror the employment questions asked during the annual employment census — the responses indicate how informals perceive their own employment status, and how they are reflected in official statistics as a result.[19] The responses provided by Ulaanbaatar's kiosks, taxicabs, boot repairmen, petty traders, and others suggest that Mongolian informals, generally, do not consider themselves to be employed, and are therefore not counted as employed in official statistics. Only 26% of taxicab drivers report to the *duureg/soum* that they are "employed."[20] Among kiosk operators, only 16% consider themselves employed, and among the informals populating the markets and streets of the city, the numbers are generally smaller yet — on average only 13% consider themselves to be employed.[21] Thus, roughly 75-85% of Ulaanbaatar's informals are not reflected as employed in the official statistics.

Box 1. "Unemployment" and Informal Incom

Percentage of households in Ulaanbaatar with informal income when the household head is . . .

. . . employed	44%
. . . unemployed	73%

Percentage of households in Ulaanbaatar with informal income when the household has . . .

. . . no unemployed people	42%
. . . at least one unemployed person	54%
. . . at least one unemployed person, and no employed people	68%

Source: Author's calculations based on SSO household survey data.

24. The household survey of income and expenditure, conducted by the SSO, adds further support to the contention that most informals do not consider themselves to be employed, and therefore are not reflected as such in statistics.[22] (This household survey will be discussed in greater detail in the next section.) Although the household survey is mainly concerned with the respondents' household budget, it also includes several control variables, such as the type of organization for which the household head works, and the number of employed and unemployed people within each household. As displayed in Box 1, participation in the informal sector is correlated with perceptions of unemployment. Not surprisingly, households in which the head is "unemployed" receive 55% of their monetary income from informal sources, whereas households in which the head is employed receive an average of only 30% of income from informal sources.

25. In summary, the official employment and unemployment statistics demonstrate a large decline in official employment, concurrent with an expansion of the working age population, and relatively low official unemployment rates. But due to the perception that work in the informal sector is not "employment," participants in the informal sector are counted as neither employed nor unemployed. The informal sector surveys conducted by the author support this notion, finding that 75-85% of informal employment is not reflected in official statistics. The SSO household survey also supports the contention that informal income is more important, and informal activities are more prevalent, for households in

which the head considers himself to be "unemployed," and for households with a greater number of unemployed adults.[23]

The Current Situation: Employment in Ulaanbaatar's Informal Sector

26. The previous section discussed the trends in informal employment. We now turn to the issue of the current size of informal employment in Ulaanbaatar. Statistics derived from the Annual Labor Force Balance will be combined with the results of the informal sector surveys to estimate that 70,000 to 100,000 people are engaged in Ulaanbaatar's informal sector as their primary occupation — including part-timers, moonlighters, and working pensioners, an estimated 105,000 to 130,000 people are engaged in informal activity, equal to roughly 34-42% of the "able-bodied population of working age" in Ulaanbaatar.[24] An analysis of the data from the SSO household survey generates similar estimates, finding that 30-33% of the working age of population are engaged in informal activities.

27. The estimates of employment in the informal sector are derived from a combination of official employment statistics and the informal sector surveys conducted as part of this study. The informal sector surveys suggests that for every informal who reports to the *duureg/soum* that they are employed, there are 2 to 6 informals who report that they are not employed.[25] Specifically, for the taxicabs, kiosks, and general informals, there were 2, 3, and 6 unaccounted informals for each accounted informal.[26] Under various scenarios of the relative proportions of similar informals, it is estimated that the true number of informals counted as not-employed was between 3 and 4.6 per informal counted as employed.[27]

28. Mongolians who respond that they are employed during the Annual Labor Force Census are further required to specify the legal form of organization for which they work. At the end of 1996, there were 17,706 working age residents of Ulaanbaatar who said they worked for sole-proprietorships. These can be considered the proportion of informals who report to the *duureg/soum* that they *are* employed.[28] Weighting by the ratio of not-employed informals to employed informals, yields an estimate of 70,000 to 100,000 people in Ulaanbaatar engaged in the informal sector as their primary means of earning a living.[29]

29. The informal sector surveys conducted as part of this study further present estimates of the number of moonlighters and pensioners as a percentage of other informals. Using the same procedure outlined above, it is estimated that an additional 15-21,000 people engage in informal activity as a supplemental means of income, and a further 13-14,000 pensioners engage in informal activity in Ulaanbaatar. All told, then, between 105,000 and 130,000 people in Ulaanbaatar engage in informal activities.[30] To put these numbers in perspective, the inclusive estimate is roughly 34-42% of Ulaanbaatar's population that is "able-bodied and of working age," or roughly 30-37% of the total working age population.[31]

30. A second approach to estimating the size of employment in Ulaanbaatar's informal sector suggests that the above estimates are reasonable. An analysis of the data from the SSO's household survey reveals that 47-51% of households have some informal income. Since a household would have informal income if even one household member had informal income, the approximate percentage of people with informal income can only be inferred. A simple adjustment suggests that roughly 30-33% of the working age population of Ulaanbaatar earns some informal income, an estimate that is consistent with the more elaborate estimation derived above.[32]

Aggregate Household Income in the Informal Sector

31. This section of the report reviews the available evidence on incomes in the informal sector.[33] An analysis of data from the SSO Monthly Survey of Household Income and Expenditure reveals a wealth of information about both the trends and the current size of the informal sector, as measured by the contribution to household income. First, it will be shown that the growth of informal activity during the transition is confirmed by the household survey data. Second, an analysis of a single month's data will be used to estimate that, in the aggregate, 32% of household income in Ulaanbaatar comes from informal sources.

Trends in Informal Income

32. Every month the SSO, with its local affiliates, conducts a survey of 1,893 households around the country.[34] Several aggregates from this household survey are informative about the trends in the relative importance of different types of income. In particular, the relative importance of wages and salaries can be compared to that of "individual activities" to get a sense of the changes over time in micro-entrepreneurship.[35]

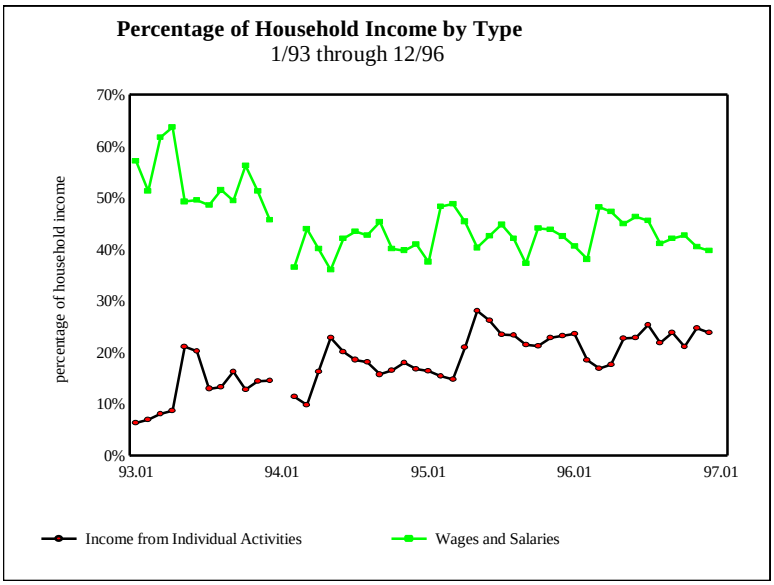

Figure 3 Source: SSO

33. Figure 3 shows the strong upward trend over time in the relative importance of individual income, compared to that of wages and salaries. If one imposed a linear fit to the observations in Figure 3, smoothing out the seasonality and random fluctuations, one would find that individual activities have doubled in importance in the past four years, while the importance of wages and salaries has fallen over 20%. The statisticians who compile the data on the household survey report that in the late 1980s, wages and salaries comprised roughly 85% of average household income, while the average household in 1996 received only 43% of income from wages and salaries.[36]

The Current Situation: Aggregate Informal Income in Ulaanbaatar

34. The SSO household survey data can also be used to make inferences about the contribution of the informal sector to household income in Ulaanbaatar. The average household in Ulaanbaatar receives 22% of their income from informal sources. However, the aggregate impact is larger due to the fact that low income household are weighted the same as middle and higher income households. Many of the poorest households are pensioner households with no informal income. Reweighting to generate appropriate aggregates we find that 32% of household income in Ulaanbaatar is generated by informal activities.[37]

Trends and Current Size of the Informal Sector Implied by Monetary Aggregates

35. One family of techniques for estimating the size of the "underground economy" (economic activity hidden from authorities for the purpose of evading taxation or regulation) utilizes monetary aggregates.[38] Most of the techniques in this family are based on the premise that cash is the preferred medium of exchange for underground activity, and the population's preference for cash relative to bank

deposits serves as an indicator of the size of the underground economy. This concept is certainly no stranger to Mongolian policy makers. Citing "widespread violation of clauses" of several laws "including such practices as not registering their cash transactions in financial statements, hiding revenue for tax evasion purposes and illegal lending and usury activities," the Ministry of Finance and Mongolbank issued a joint resolution in 1993 mandating that cash in excess of 100,000 togrogs must be deposited in commercial banks on a daily basis.[39] A brief survey on informal finance undertaken as part of this study (discussed in more detail later in the report) confirms the isolation of the informal economy from the formal banking system. Of 30 informals questioned about their financial activities, not one used a commercial bank in any way.[40]

36. The simplest method utilizing monetary aggregates is the currency-ratio method: a base period is chosen for which it is assumed that little underground activity existed, and changes in the ratio of currency to demand deposits are therefore attributed to changes in the level of underground activity. The difference in the currency-ratio relative to the base period is multiplied by the actual income velocity of money to arrive at the estimate of the size of the underground economy. However, the currency-ratio method requires a degree of modification before being applied to the case of Mongolia. Even in the United States, this method has been criticized for failing to account for changes in household money management preference, and technological and financial innovations. In Mongolia, there have been sizable changes in the structure of the banking sector and shifting government policy toward banks. There have also been changes in the type of account preferred by consumers in response to changes in the rates payed by the banks.[41] Thus, applying the currency ratio technique to M1 risks attributing to the underground economy some preference for cash that can be easily explained by a simple currency demand model.[42] So, the technique is somewhat modified here by using M2 as the indicator of above-ground economic activity.

37. The results on the relative size of the "underground" economy are consistent with those found earlier. Applying the simple currency-ratio method to Mongolia, made somewhat more conservative by the use of M2, yields an estimate that the underground economy has grown since 1990 by an amount equal to roughly 23% of the "above-ground" economy at the end of 1996.[43] Although there is no information about the size of the Mongolian underground economy in 1990, baseline assumptions of 10-15% have been used in the transition literature to represent the size of the underground economy prior to transition in Soviet-style economies.[44] If such a baseline were accepted for Mongolia, the size of the underground economy implied by the currency-ratio technique would be roughly 33-38% of the above-ground economy at the end of 1996.[45]

Summary — The Current Size of the Informal Sector in Mongolia

38. This section of the report sought to examine the magnitude of informal activity, both in terms of trends and current size. Three bodies of data for which time series were available were used to demonstrate the rapid growth of informal activity in the 1990s. The expansion of the number of "not-employed" in Ulaanbaatar, the growth in the importance of informal income in Ulaanbaatar, and the increase in the ratio of currency to bank deposits all tell the same story: the informal economy has grown rapidly in the 1990s. When estimating the current size of the informal sector, we again found that several bodies of data, and several techniques, tell the same story.[46] Despite the difficulties of estimating the size of the informal sector, each of the techniques and each of the bodies of data present estimates that are similar in magnitude.[47] Box 2 summarizes these estimates.

Estimates of the Size of the Informal Sector

Method	Source(s) of Data	Reference	Estimate
Estimate the ratio of informals who are not counted as employed to those that are counted as employed; multiply this ratio by the number of people responding that they work for sole proprietorships during the 1996 labor force census.	Informal sector surveys conducted by the author; Annual Labor Force Balance	Ulaanbaatar	23-32% of the working age population were employed solely in the informal sector at the end of 1996 and beginning of 1997; including moonlighters and working pensioners, 30-37%
Use the percentage of households with informal income and the average number of working age household members to infer the percentage of the working age population with informal income.	SSO Household Survey data.	Ulaanbaatar	30-33% of the working age population of Ulaanbaatar in the last quarter of 1996.
Estimate the aggregate percentage of informal income in aggregate total income using household survey data.	SSO Household Survey data.	Ulaanbaatar	32% of aggregate household income in Ulaanbaatar in the last quarter of 1996.
Attribute the increase in the ratio of currency to M2 between 1990 and 1996 to an expansion in the "underground" economy; combine with the velocity of M2, the current level of official GDP, and the (assumed) pre-transition level of "underground" economic activity, to arrive at an estimate of the current size of the "underground" economy.	SSO and Mongolbank data.	Mongolia	33-38% of the "above-ground" economy at the end of 1996.

3. Why So Big, So Fast?

39. Many of the studies of other countries' informal sectors have focused on the root causes of informal sector growth. By and large, they arrive at conclusions based on the inadequacy of formal sector institutions, excessive regulation and taxation of formal enterprises. (Indeed, some scholars use adherence to institutions as the defining characteristic of the informal sector.) This section of the report will present some factors that are driving the growth of Mongolia's informal sector. Four broad, overlapping, categories of reasons will be explored. First, there is the possibility that the explosion of the informal sector is a response to the crisis that befell the Mongolian economy in the first half of the 1990s. The contraction of the formal economy released large pools of labor, adding to the supply of labor available for the informal sector. Second, we will consider the impact that rural-urban migration is having on the informal sector in Ulaanbaatar, another factor that may be contributing to supply. Third, we will consider whether the informal sector is expanding to meet the demand for goods and services that were under-provided prior to the transition, and are currently under-provided by the formal sector. High demand for informal provision of such goods and services leads to relatively high productivity and high income prospects for entrants. Lastly, and most importantly, we will evaluate the ease of entry afforded informals relative to their formal counterparts. Informals make their own labor arrangements, have easier access to premises, fewer registration requirements, less need for formal finance, and simpler (if sometimes higher) taxation. A summary will argue that while all of these supply and demand factors have some effect, it is the ease of entry afforded the informals that has the greatest implications for policy makers and will likely drive informal sector growth in the next decade.

A Response to Crisis — Supplying Labor to the Informal Sector

40. The contraction of the Mongolian economy during the early and mid 1990s caused the release of large numbers of workers from formal sector employers — a survey of privatized Mongolian enterprises conducted by Georges Korsun and Peter Murrell, together with the author, found that between 1990 and 1995 employment fell by 50% for the average privatized enterprise, slightly more for the privatized sector as a whole.[48] Those released from formal employment, combined with the large proportion of school-leavers inherent in a young population, produced a steady flow of workers, many of whom had to chose between informal employment or abject poverty.[49] At the same time, declining real wages in the formal sector have led many formal sector employees to supplement their income by moonlighting in the informal sector.

41. The informal sector surveys conducted by the author support "response-to-crisis" as a factor contributing to the growth of the informal sector. Over half of the taxicabs surveyed said the reason they give the *duureg* for being unemployed is that they have lost formal employment due to lay-offs or bankruptcy, or that they can not find a job to match their skills. (Taxicab drivers are generally well-educated and highly skilled.) Anecdotally, the researchers who surveyed street boot repairmen found that they were largely skilled leather workers laid-off from Ulaanbaatar's boot manufacturing and leather processing enterprises.

42. But not all informals are skilled factory workers unable to find formal employment. Many are unskilled people making a living in the informal sector because there are no other alternatives. Among those who tell the *duureg* that they are not employed, many say the reason they provide is that they have no skills.[50] For them, the informal sector is their only available means of escaping poverty. Box 3 illustrates the importance of the informal sector for alleviating poverty in Ulaanbaatar.[51]

Box 3. An Escape From Poverty

How successful is the informal sector at providing families with the means to escape poverty? It is well-known that a large number of households fall under the official poverty line, but an examination of the SSO Household Survey data for late 1996 tells a much deeper story. While the data confirm that roughly 38% of Ulaanbaatar households had poverty-level income, the data also allows us to answer the counterfactual: how many would be in poverty if they did not have informal income? A startling 53% of Ulaanbaatar households would fall below the official poverty line, attesting to the contribution to poverty alleviation made by micro-enterprise. As an illustration of the importance of this result, the households raised from poverty by informal income provide homes for an estimated 31,000 children in Ulaanbaatar

Source: Author's estimates based on data from the SSO Household Survey.

Rural-Urban Migration — Supplying Informal Labor

43. In many countries, growth of the informal sector is associated with migration from rural areas to urban centers. New migrants arrive without jobs, providing a large pool of labor for informal "employment." In Mongolia, however, migration is not currently a driving force of the informal sector — although net migration to Ulaanbaatar has increased considerably since 1991, the levels remain fairly small, about 2% of Ulaanbaatar's population annually.[52] But migration can not be dismissed entirely for several reasons. (i) Migrants may not be officially registered with the police, implying that 2% net migration is an understatement of true migration. Indeed, some officials believe that the true level of net-migration is much higher. (ii) Unregistered migrants can not legally work in the formal sector. Thus it is a virtual certainty that un-registered migrants work informally or not at all. Several respondents to the informal sector surveys conducted by the author (particularly at the "black" market) said they avoid questioning by the *duureg* on employment status because they are not legally permitted to live in Ulaanbaatar. (iii) An important constraint on migration is that migrants have difficulty finding living space, and this constraint may soon be alleviated. Until very recently, there was a small market for housing due to the slow progress on housing privatization and legal prohibitions on the sale of publicly-owned apartments. Development of new, private, housing stock was similarly hindered by the lack of a market for urban lands and difficulties obtaining utility connections.[53] In general, Mongolians wishing to migrate to Ulaanbaatar can only do so if they have relatives in the city who volunteer enough space in their living quarters for the new migrants. Housing privatization, urban land privatization, and improvements in the energy sector may be expected to lead to a more fluid market for living space in Ulaanbaatar — existing apartments will become more easily reallocated, and the improved access to utility connections and the market for urban land will accelerate the development of new living spaces. As one constraint to migration is eased, it can be expected that the level of migration will increase, and as it does so the relative importance of migration in shaping Mongolia's informal sector will grow.

The Market's Reallocation of Society's Resources — A Demand for the Services Informals Provide

44. Certain sectors of the economy were notoriously neglected under central planning, relative to the outcome one would expect from markets, specifically, the service sector including distribution services and transport. Not surprisingly, these are the very same sectors in which we observe a large amount of informal activity. The market has reacted swiftly to the demands of consumers, and it is these demands that are driving the relatively high productivity levels observed in the informal sector.[54] However, note that this explanation, alone, cannot explain why the informal sector has met this market demand — an

expansion of formal services could also have satisfied the demands of consumers. But the high demand for these services do go a long way toward explaining the high incomes received by many informals, and the high incomes continue to draw people toward the informal sector.

Easy Entry for Informals, Difficult Entry forFormals

45. The reasons for the rapid growth of the informal sector discussed so far contribute to our understanding of some factors influencing the supply of labor to the informal sector, and the demand for the services generally provided by informals. But the question remains why the formal sector hasn't absorbed more of the labor released by state and privatized enterprises than it has, and why the formal sector hasn't met more of the market demand for services than it has. To understand the reasons why informals have done these things better, faster, and in a bigger way, we must examine the differences in constraints, institutions, and treatment by the state between the formal and informal sectors in Mongolia. This section of the report will detail the differences with respect to registrations and bureaucracy, labor regulations, the availability of premises, the reduced need for formal finance afforded by the smaller scale of operation, and the differences in the method of taxation applied to the formal and informal sectors.

There's No Escaping Bureaucracy, butInformals Face Less of It

46. Mongolia is country where informality does not mean freedom from bureaucracy. The long history of strong control over economic activity in a small country where local officials are unusually familiar with their constituents, allows for a relatively high degree of enforcement of the regulations affecting informals. But those regulations are generally not cumbersome. For most informals, the only regulation affecting them is that they register with the tax authorities and pay their flat monthly tax. (See below.) Compliance is predictably correlated with the probability of being caught: At the chaotic outdoor markets[55] only 33% of the informals surveyed were officially registered, whereas 100% of kiosks, with quasi-fixed locations, are officially registered. Kiosks must also comply with health and sanitation regulations, but they are reasonable regulations and compliance seems to be high for these, as well.[56]

47. Formal enterprises, on the other hand, must be officially registered as economic entities,[57] and in order to register, companies must further demonstrate that they have significant levels of share capital.[58] These requirements are not unreasonable. In practice, however, the laws allow considerable discretion on the part of the registering officials, and the process resembles less a registration than a permission. For example, the registry has to the power to "examine whether or not the partnership or company is being formed in compliance with the laws," and may refuse registration due to "noncompliance of the object of its business with the laws."[59] The effect of such discretion is illustrated by the experience of some entrepreneurs when they attempted to establish an insurance company a few years ago: the state registry told them they must first get permission from Mongoldaatgal, the state monopoly insurance company.[60]

48. In addition to the registration as an economic entity, formal enterprises are subject to other regulations that informals may avoid, including the labor regulations discussed below. Many of the regulations (e.g., health regulations, safety inspections, environment protections, industry-specific licensing) are not unreasonable. The difficulty with registrations and regulations is not that there are too many, but that there is frequently too much discretion (and interpretation of the meaning of the laws) permitted on the part of the implementing authorities.[61] Such discretion adds to the uncertainty of formal sector entrants, leads to delays, and hinders formal sector development.

Informals Make Their Own Labor Arrangements

49. A notable difference between the informal sector and the formal sector is the manner by which labor relations (wages, working hours, holidays, etc.) are settled. For the informal sector, in which family

ownership is the norm, working arrangements are made informally. (The survey of kiosks, for example, found that for over 80% of kiosks there was no pre-defined mechanism for compensation; profits simply went into the family coffers.)[62] Enterprises in the formal sector, on the other hand, must adhere to Mongolia's regulations on the labor market, particularly those imposed by the *Labor Law*.

Box 4. Coverage Under Social and Health Insurance in Mongolia's Informal Sector

The informal sector surveys provide some indication of the degree to which informal sector participants are covered by the health and social insurance systems. The percentage of informals not covered by either scheme ranges from 36% for the moonlighting-friendly taxicab activity, to 55% for the informals that populate the streets and outdoor markets. The lack of coverage for such large fraction of a large segment of society could have important implications for public policy, as it could be an indication that contributions to the health and social insurance funds may fall below current projections. However, pessimism on this score can be tempered with the knowledge that informals demonstrate some willingness to make voluntary contributions to the health and social insurance funds. Roughly half of the taxicab drivers, kiosks operators, and street informals, who are not otherwise employed, make voluntary contributions to one of the schemes. Even at the outdoor markets, 37% of the informals whose sole source of income is their informal occupation, make voluntary contributions to one or the other schemes.

Source: Author's informal sector surveys.

50. Mongolia's *Labor Law* was enacted in 1991, and is very ambitious in its designs to protect the Mongolian worker. It seeks to ensure healthy and safe working conditions, fair remuneration for an employee's skills, spells out valid conditions for firing, and requires that employers retain a worker's post when a worker leaves for government service, takes regular annual leave, or goes on strike. The *Labor Law* is also quite specific about the official workweek (46 hours), the length of an ordinary workday (8 hours, 7 hours if at night), and the minimum period of rest between two consecutive work days (12 hours). Employers are generally forbidden from requiring overtime from their workers; when overtime is performed, it is remunerated with double-pay. The *Labor Law* mandates eight holidays per year, and Sunday is legislated as a public day of rest. With few exceptions, employers are forbidden from compelling work on a holiday or a day of rest. Annual leave is legislated to be 24 to 39 days per year, depending on years of service and working conditions.[63] The *Labor Law* forbids dismissal of pregnant women or women with children under two years old.[64] Nursing breaks are guaranteed. The *Labor Law* also spells out liberal maternity benefits: 45 days before delivery, 56 days after delivery. A new mother may further chose to take up to two years additional leave, during which time their jobs must be retained by their employer.

51. The *Labor Law* seeks to protect the interests of workers but adds to the costs of hiring formal sector labor. As those costs go up, the number of jobs available in the formal sector can be expected to go down, and the *Labor Law*, therefore, is a likely candidate for a formal sector institution that is driving entrepreneurial energy into the informal sector where the non-wage costs of labor are practically non-existent. In the informal sector, most of the working arrangements take place within the family, and when hired labor is used, the arrangements are often informal enough that issues such as the amount of annual leave are decided among the participants themselves, without it being imposed on them by legislation. The liberal leave policies themselves provide significant pools of labor for the informal sector. Nearly 20% of moonlighting kiosk proprietors (8% of all kiosks) are currently on leave from formal sector jobs.

52. In addition to the non-wage costs of formal labor imposed by the *Labor Law*, Mongolia's recent adoption of funded health insurance and social insurance systems also raise the cost of formal sector labor. Mongolia's *Social Insurance Law* requires that formal sector employers pay a premium of 18% of wages, of which 13.5% supports pension insurance, with the remainder distributed among benefit insurance, production injury, occupational disease, and unemployment insurance. Formal sector employees must also contribute 7% of wages to the social insurance fund, of which 5.5% goes toward pension insurance. Self-employed people, on the other hand, are permitted to decide for themselves whether to enroll in social insurance. The system is somewhat different for health insurance. Formal sector employers are required to pay at least half of health insurance premiums (currently 6% of wages), and may pay more on their employees' behalf if they choose. The *Health Insurance Law* stipulates that sole proprietors are subject to compulsory insurance. Voluntary contributions may also be made, e.g. by the unemployed. Box 4 describes the degree to which informals are covered by social and health insurance.

Box 5. The Market's Response to the Difficulty of Findin Premises

A recurring feature of the informal distribution sector in Ulaanbaatar is the formal ownership, and informal occupation, of premises. The outdoor markets (the "Black" Market, the Harhorin Market, many raw materials markets, etc.) are privately owned by companies whose main function is to provide a place for informals and consumers to congregate and trade. The indoor markets serve a similar function: private companies provide space inside a building, and (usually informal) retailers rent counter space monthly. Such formal-informal cooperation demonstrates how entrepreneurs respond to bottle-necks caused by bureaucracy and the high fixed cost of locating premises. The companies that own the buildings or lease the land earn a return for doing things that informals can not do easily: for obtaining space (on a plot of land or in an existing building) in a convenient location where the tenants are likely to generate business.

53. In short, entrepreneurs in the informal sector are free to decide for themselves the working arrangements, amount of leave, and whether to participate in the social and health insurance schemes, while formal sector employees have such decisions thrust upon them by legislation.

Access to Premises? Not a Problem for Informals

54. Informal operations, at least in Mongolia, rarely require a permanent place of doing business. Vendors at the various markets stake out their territory one day at a time, and informal transport carriers go where the market demands. Only a kiosk requires a permanent site. But even in the case of kiosks, the amount of land needed is no more than a few square meters — they are granted a place to establish operations as part of the licensing process. By contrast, formal operations generally require a permanent place of doing business, and the supply of such premises is limited in Mongolia. There is still no private ownership of land,[65] and urban building permits are difficult to obtain.

Small Scale Means Independence from Formal Banking

55. A significant barrier to entry faced by formal sector entrants is that credit is expensive and hard to find. Due to the scale of operations, however, informals can usually finance their activities through family savings or by borrowing from relatives. A sample survey of 30 informals[66] found that 20 had started their operations with personal or family savings, or by borrowing from family or friends with no interest; 8 had borrowed from family or friends with positive interest; 1 had borrowed from the organization where her husband worked; and the other, a street vendor of soft drinks, began her operations by borrowing from a pawn shop. This last case was the closest connection to formal finance found during the survey — none of the informals surveyed used commercial banks in any way.

56. Despite the relative ease of entry afforded informals by the limited need for finance, we must remember that the informal sector defies stereotyping — the average experience is not the universal experience. Although only about a third of the informals surveyed began their operations by borrowing money, those that did, did so at very high interest rates, averaging around 11% per month.[67] With inflation in the neighborhood of 3.5% per month, these are very high real interest rates, indeed.

Taxation of the Informal Sector — Rich Informals Win, Poor Informals Lose

57. Formals and informals are taxed differently in Mongolia — indeed, this may be the best objective criterion for judging informality. Formal sector enterprises pay income taxes according to the rates in the *Economic Entities Income Tax Law*, and their employees pay income taxes according to the rates in the *Citizen's Income Tax Law*. Informals, on the other hand, pay a flat tax each month as dictated in the *Income Tax Law of the Citizens Who Individually Engage in Business Activities and Services Whose Income Can Not Be Determined Every Time*. (The latter is being referred to as the *Informal Sector Income Tax Law* throughout this report.) Thirty-two categories of informals are covered by the *Informal Sector Income Tax Law*, paying flat fees ranging from 60 to 4,000 togrogs per month in early 1997.[68]

Box 6. The Popular Revolt Against the Informal Sector Income Tax Law

Although the average incomes of some informal activities are frequently large relative to their formal counterparts, many informals earn considerably less than the average — it is these informals that are hit hardest by the *Informal Sector Income Tax Law*. The failure to recognize this fact led to policy mistakes sparking a popular revolt against increases in some taxes applied to informals during the spring of 1997. Proposed increases in vehicles taxes led to a threat by informal truckers to gridlock the nation's capital, and the trebling of the rates charged in the *Informal Sector Income Tax Law* caused widespread dissent among informals. Although the new, higher, rates seemed modest relative to the *average* incomes of informals, the new rates were clearly excessive for the poorer informals. Kiosks, for example, saw their monthly taxes go from 4,000 togrogs per month to 14,000 togrogs per month. Even under the old tax rate, 4% of kiosks were generating incomes below the official poverty line. **Under the new, higher, rates an additional 5% of kiosks were driven into poverty.** But even the more fortunate proprietors sensed the inequity of the law. Under the old rates, half to three quarters of kiosks were paying more tax than they would have under the *Economic Entities Income Tax Law* or the *Citizen's Income Tax Law*, respectively. **After the rates were increased, 92% of kiosk proprietors were paying more tax than they would have under the *Citizen's Income Tax Law*.** Furthermore, the broadness of the categories of activities in the *Informal Sector Income Tax Law* allowed (required) discretion on the part of the tax collectors — many petty street vendors with no permanent location were forced to pay the same tax as the largest, most profitable kiosks.

The popular discontent with the higher taxes on informal proprietors led to a policy reversal. The proposed vehicles taxes were vetoed, and once the dust settled, the *Informal Sector Income Tax Law* rate applied to kiosks (for example) had been lowered from 14,000 to 6,000 togrogs per month.

Source: Informal sector surveys conducted by the author.

58. The *Informal Sector Income Tax Law* was written with practicality in mind. Informals frequently do not keep records, and to subject them to the formal income tax laws would be cumbersome. The system of flat taxes makes for easy collection — the tax authorities need only visit a shoe shine or a kiosk and demand either the tax or proof of prior payment. However, policy makers must understand that informals earn a wide range of incomes, and the imposition of such a flat tax inevitably means that poor informals will pay a large proportion of their income in tax, while for wealthier informals the *Informal*

Sector Income Tax Law is very mild. The rates themselves seem somewhat arbitrary. As can be seen in Table 1 and Figure 5, the rates in place in March 1997 seem disproportionately high for some activities and disproportionately low for others. Seventy-six percent of kiosks and 60% of cigarette and soft-drink vendors pay more tax than they would under the *Citizen's Income Tax Law*, while the boot repairmen are much better off under the system of flat taxes.

59. Box 6 elaborates on the difficulty that Mongolian authorities have had in understanding these important issues. While it is reasonable to expect citizens to pay taxes, special care should be taken when designing taxes for the informal sector. At the same time that the policy rhetoric is emphasizing poverty alleviation, support of micro-enterprise, and even the development of micro-credit, they are trebling the taxes that (lawful) informal must pay. Counter to the goal of alleviating poverty, the *Informal Sector Income Tax Law* hits the poorest of the informals hardest, impeding the ability of the poor to help themselves.

60. On balance, it is difficult to say how the different approaches to taxation between the formal and informal sectors are affecting growth of the informal sector. The *Informal Sector Income Tax Law* may discourage entry to some degree, but many informals have little choice but to eke out a living however they can. On the other hand, once someone has taken the informal path, the taxes they pay have no effect on the incentive to work hard, save, reinvest and grow. The simplicity of taxation of the informal sector may, on balance, be stimulating growth of informal activities. But it comes at the cost of equity, and if the taxation becomes excessive, or the perceived inequities becomes too great, the current approach to taxation of the informal sector runs the risk of driving law-abiding, tax-paying, entrepreneurs toward illegality.

The Result: Incomes of Informal Sector Activities

61. Having discussed the leading supply and demand factors, we can now examine the end result: incomes in the informal sector. Differences in income levels between the informal and formal sectors draw people toward, or push people away, from the informal sector and therefore motivate growth.[69] But the levels actually observed are the result of an interaction of the all of the factors outlined above. (State sector incomes will be used as representative of formal sector incomes, simply because the data is readily available.)

62. Employees in the formal sector are guaranteed by law certain benefits that informals do not receive, such as holidays, paid vacations, and sick leave.[70] Such guarantees must be addressed before comparing formal and informal incomes; they will be treated as an effective 19% increase in base salary of formal sector employees. Also, formal sector employers must make contributions, on behalf of employees, to the state's Health Insurance and Social Insurance Funds. The value of such contributions to the employees will be approximated by the amount of the contributions, 24% of income.[71]

63. Figure 4 illustrates the relative profitability of state employment versus informal sector work. Even after incorporating the value of employer paid benefits, holidays, annual leave, etc., state salaries seem extraordinarily low, considering the relative requirements of education and the relative prestige of the jobs. It is not at all uncommon to find doctors cleaning houses or skilled engineers driving taxicabs. Indeed, the informal sector surveys revealed numerous examples of people who said they didn't want to work in the formal sector simply because salaries were so low.[72] It is particularly instructive that kiosks, which are viewed by local officials as a means of alleviating poverty (see the section on kiosks in Appendix A), generate average incomes greater than salaries earned by judges on the Supreme Court.

64. While the large relative salaries afforded to some informal occupations serve as an incentive for formal sector employees to consider informal work, those that prefer not to leave their formal sector jobs still have the incentive to moonlight, and those that do, usually earn more money informally than they do in their formal sector jobs. The informal sector surveys reveal that the degree of moonlighting varies across informal occupations, predictably, with the potential incomes of the occupations, and how well the informal activity lends itself to moonlighting. Informals on the streets and in the outdoor markets are roughly 20% moonlighters, while kiosks are 32% moonlighters, and taxicabs, an informal occupation particularly well-suited as such, are 43% moonlighters. (Part-time taxicabs are 72% moonlighters.) Among those informals that are moonlighting from formal sector jobs, most make more money in their informal occupations: 68% of moonlighting kiosk proprietors, and 88% percent of taxicab drivers earn more money in their informal work than they do in their formal jobs.

65. As outlined earlier, different types of formal and informal sector occupations are taxed in different ways. Formal sector employees are subject to the personal income tax at a progressive marginal rate, while informal sector participants are covered by a separate schedule of flat monthly taxes for occupations where the income is difficult to define.[73] The tax treatment of various occupations is presented separately in Figure 5.[74] Note that the tax paid by the average informal is small relative to the tax paid by formals with similar incomes. As the *Informal Sector Income Tax Law* was passed in 1993, the real tax paid by informals has declined with inflation. There is another point, mentioned earlier, that is worth re-emphasizing here. Whereas the formal income taxes depicted in Figure 5 are based on the actual income levels, the informal income taxes are imposed on participants in that activity *regardless of their level of income*. Many kiosk proprietors, for example, earn much less than the average level of income depicted in Figure 4, but they pay the tax depicted in Figure 5 nevertheless.

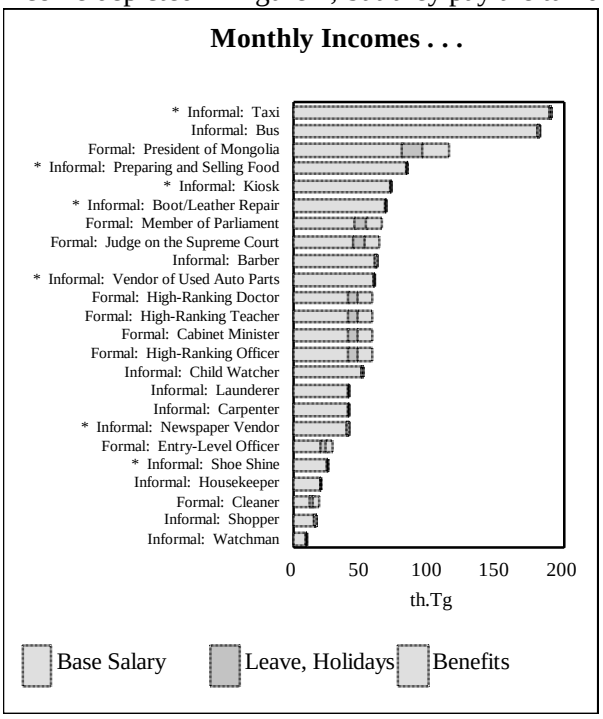

Figure 4. Source: Incomes marked by asterisks are based on the author's informal sector surveys, described in Appendix B. Estimates of other incomes were provided by the Ulaanbaatar City Administration. All incomes are in 3/97 togrogs.

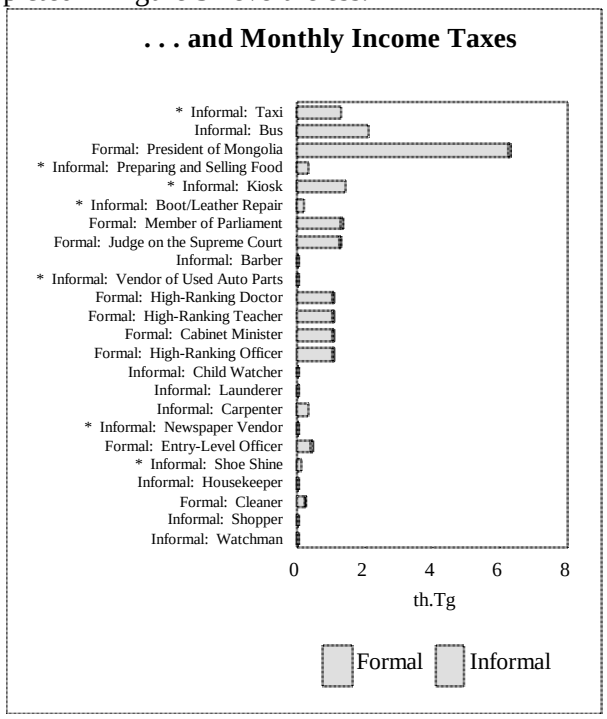

Figure 5. Source: Author's calculations based on the incomes in the preceding figure, and the schedules of rates in the Citizen's Income Tax Law, and the Informal Sector Income Tax Law.

Summary — Ease of Entry is Driving Informality

66. This section has outlined four classes of reasons for the explosion of informal activity in Mongolia since 1990. (i) The crisis of the early and mid 1990s caused the release of large pools of labor which were forced to seek informal employment or none at all; (ii) Migration from rural areas to cities are contributing to the growth of informal labor; (iii) The "market" is reallocating its resources toward areas that were neglected under the old system, namely services such as distribution and transportation; (iv) entry is easier for informals. While all of these factors are contributing to the growth of the informal sector, none of the first three can explain the explosion of informality without the last, ease of entry. Even if large pools of labor were released from formal sector enterprises (they were), and even if migrants to the cities are providing labor (they are), and even if the market is reallocating its resources toward other sectors (it is), the question remains why formal enterprises haven't absorbed the labor and the demand for new services. The relative ease of entry afforded by informality, on the other hand, can explain why informality has expanded, and for this reason, ease of entry is likely to have the most enduring effects on the growth of the informal sector (and growth of the economy) in the next decade. The relative ease of entry for informals, the relative difficulty of entry for formals, is not a random occurrence, but is driven directly by policy. Improvements in policies toward the formal sector could afford them the ease of entry enjoyed by their informal counterparts.

4. Conclusions: What Good is the Informal Sector?

67. Ulaanbaatar's micro-entrepreneurs have much to teach us about perseverance. Many took up work in the informal sector as a reaction to economic crisis and joblessness. They entered into business without the assistance of subsidized credit — they self-financed or borrowed from family or friends at very high interest rates. They entered into lines of work that were highly competitive, and for which there could be no way to stop others competing against them. They generally have no permanent place of doing business, and their income is guaranteed only by their own hard work, perseverance, and reinvestment. They face uncertainty over how they will be taxed. Yet for all the difficulties they have faced, Ulaanbaatar's informals have been remarkably successful. The informal sector has absorbed much of the labor released from traditional employers during the contraction of early to mid 1990s — roughly 30% of Ulaanbaatar's working age population participate in the informal sector, and informal income supplements the income of half of the households in the city. Ulaanbaatar's micro-entrepreneurs have demonstrated the ability of the poor to help themselves — informal income allows roughly 15% of Ulaanbaatar's households to have incomes above the official poverty line.

68. Ulaanbaatar's micro-entrepreneurs have much to teach us about how the market directs resources to their most efficient use. The successes generated by informals comes only because they are providing what the market demands. Informal transportation provides consumers with alternatives to public transport, alternatives for which they have shown a willingness to support. Consumers benefit from the greater and more convenient access to consumer goods provided by informals, the goods' prices checked by competition. By serving society's needs, informals are aptly rewarded: some occupations provide incomes rivaling top positions in the government.

69. Ulaanbaatar's micro-entrepreneurs have much to teach us about policies for economic growth. With the exception of taxation, public policy is generally friendly toward informals — unhindered by red tape and barriers to entry, micro-entrepreneurs can set about the more important task of generating value added by satisfying the demands of the market. The current system of taxation of the informal sector achieves certain goals of taxation (simplicity, efficiency), at the expense of equity and at the risk of hurting those who can most benefit from micro-enterprise. By generating their successes in the face of intense competition, the total absence of subsidized credit, and without trade protection, Mongolia's micro-entrepreneurs have demonstrated that the key to unleashing Mongolia's entrepreneurial spirit lies not in subverting the market, but in embracing it. Healthy competition is ensured in the informal sector by the small barriers to entry, and it could be so for the enterprise sector as well. The non-wage costs of labor are small for the informal sector, relative to the formal sector, and Ulaanbaatar's informal sector faces a simpler system of registrations, and easier access to facilities, than do their formal sector counterparts. Reducing state-imposed non-wage costs of formal labor, easing registrations, and laying the groundwork for easier access to facilities through privatization of urban land will afford enterprises a competitive business environment, like that enjoyed by informals, whereas subsidized credit and protection from competition only distort the market. By studying the informal sector's example, policy makers can truly harness the power of the market, enhancing the business environment for Mongolian entrepreneurs in the both the formal and informal sectors.

Appendix A. Micro-studies of Informality in Mongolia

70. This appendix will discuss in detail two sectors in which informals play a large role, distribution and transportation. The purpose is to illustrate how micro-entrepreneurs have come to prominence in these sectors, and how organizational structures and interrelationships with the formal sector have evolved to fit the needs imposed by the market and by formal sector institutions.

Informal Distribution

71. Casual observation suggests that the distribution sector of Mongolia's economy is one in which informal activity is thriving. Throughout the entire stream of distribution services, from international traders to wholesale trading at the "black market," to supplying the *aimags*, to retail distribution through kiosks, much of the value added at each stage comes from the informal sector. The pages that follow will provide an introduction to some of these informal activities. Particular emphasis will be given to kiosks, 245 of which were surveyed for the purposes of this study.

Bringing the Goods to the Consumers: Kiosks

72. In the last four years, kiosks have popped up all over the settled areas of Mongolia, seemingly overnight, to serve local residents with a convenient place to buy candy, soft-drinks, cigarettes, biscuits, and other consumer goods and to provide their entrepreneurial owners with a source of income. Mongolians know them as TUTs, (rhyming with "boots") an acronym for "fast-service point." Non-existent before 1992, they have quickly grown to become a major source of retail distribution for Ulaanbaatar, their numbers rapidly overtaking those of retail shops in every district of the city. (See Figure 6.)

73. Establishing a kiosk is not bureaucratically cumbersome, but neither is it transparent. The first step in obtaining permission to establish a kiosk in Ulaanbaatar is to visit the *duureg* and submit a written request to set up a kiosk. The request must be accompanied by a stamped statement from the chairman of the local *horoo* (a sub-unit of a *duureg*) stating that the person wishing to establish a kiosk needs the income a kiosk would provide.[75] After paying a visit to the family to confirm that they are poor and in need of income, the local official makes a recommendation and the *duureg* governor makes the final decision whether to approve the application. If it is approved, the local official then seeks out a suitable piece of land to establish the kiosk.

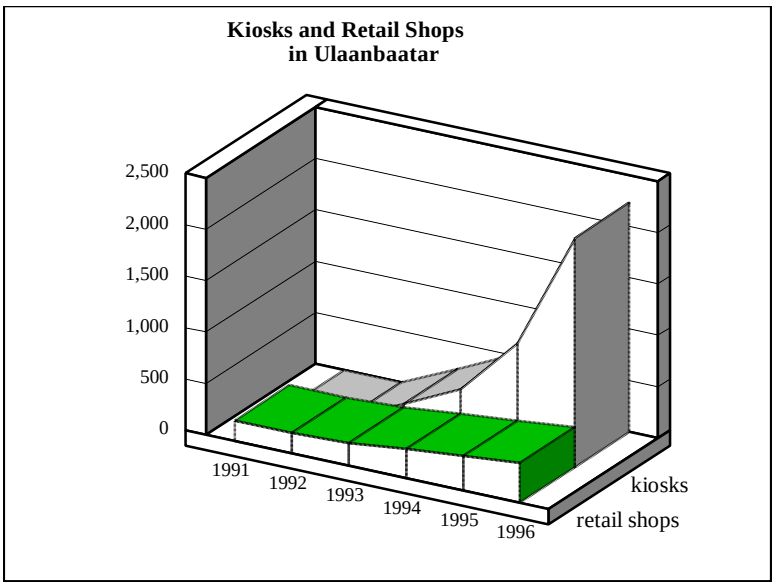

Figure 6. Source: Ulaanbaatar City Administration

74. Kiosks are not entirely unregulated or untaxed. They are sensibly obligated to maintain valid licenses, to keep the area clean, and to refrain from selling alcohol, expired food products, or certain tobacco products. They must be established a safe distance from toilets and garbage receptacles. Before

commencing operations, a kiosk owner must pass a medical examination, and present a certificate that they passed. Only kiosks with electricity and water are permitted to sell meat, eggs, and other unpackaged perishable goods.

Box 7. Kiosks

The proliferation of kiosks demonstrates some key features of informal economic activity: ease of entry, and avoidance of bureaucracy. The establishment of a retail shop requires a lengthy process of finding a space in an existing building, or constructing a new facility oneself, made difficult, indirectly, by the lack of a market for land, and the difficulties getting necessary licenses and utility connections. Establishment of a kiosk also requires a land permit, and adherence to other regulations (as described in the text), but as the size of the land needed is only a few meters, the construction of a kiosk is not technologically complicated, and a kiosk can function without electricity or water, the ease of entry is greater, and the bureaucratic hurdles lower, than with a formal sector retail shop.

75. Kiosk operators are obligated to pay 45 togrogs per square meter each year for land rent, and 3,720 togrogs per quarter for cleaning the surrounding area. For income tax, kiosks are subject to the *Informal Sector Income Tax* paying a flat rate of 4,000 togrogs per month at the time of the survey in 2/97, an amount which hadn't changed in 3 years. In the spring of 1997 this rate was increased to 14,000 togrogs per month, then decreased to 6,000 togrogs in the face of popular discontent with the higher rates. (See Box 6.)

76. Ulaanbaatar's kiosks exist in an environment of intense competition. Frequently they are grouped as many as twenty or thirty together along one stretch of road, or five or six near a single bus stop, and as they all buy their supplies from the same place, the "black market," they all tend to sell similar merchandise. Despite this competition, kiosks are thriving. Ulaanbaatar's kiosks generate about 6,300 full-time equivalent jobs, nearly one for every 5 jobs in the distribution sector.[76] They also contribute an estimated 107 million togrogs per week to value added. Extrapolating to a year, at current prices and rates of profit, kiosks contribute an estimated 5.55 billion togrogs per year to value added.[77] This amounts to about ¾ % of Mongolia's GDP for 1996, or roughly 2.3% of the Ulaanbaatar economy. For the purposes of illustration, the estimated value added from kiosks is roughly one and a half times the total population income tax revenues collected in Ulaanbaatar, and 70% of the level of spending on education from the Ulaanbaatar city budget. Furthermore, these estimates are only for value added. The total final value of goods distributed via kiosks in Ulaanbaatar is estimated to be 18 billion togrogs annually, at current (3/97) prices.

Formal Facilitation of Informal Activities Indoor Markets

Box 8. Indoor Markets

The form of organization of Ulaanbaatar's indoor markets provides an excellent illustration of the relationship between the formal and informal sectors. Indoor markets are generally owned and operated by economic entities, and are clearly formal sector operations. The counters themselves, on the other hand, tend to demonstrate the characteristics of the informal sector, with a very small scale and reduced susceptibility to formal sector rules and regulations. Indeed this form of organization (formal ownership of premises, informal occupation of the premises) may have evolved as a means of economizing on various costs, including those of bureaucracy and financing.

77. A successful way of organizing entrepreneurial energy that has emerged in recent years is that of the indoor market.[78] As discussed in the kiosk section, a major difficulty faced by small-scale entrepreneurs in the distribution sector is that of finding a location without enduring a financially strenuous and bureaucratically cumbersome process, and yet finding a

location that provides a profitable locale where a steady stream of customers is likely. The "market" has responded to this desire through the private sector creation of several indoor facilities that rent small "counters" a meter or two wide. Indoor markets have emerged as the leading shopping centers for the apartment dwellers in Ulaanbaatar.[79] Indoor markets guarantee lots of fresh and non-perishable foods, making these indoor markets convenient for consumers; the steady stream of customers, and relatively warmer working conditions, make the operation of a counter more profitable and more comfortable than operating a kiosk.

78. With the greater profits come greater fees. Indoor markets charge an average of 35,000 togrogs per month per counter space, sometimes at varying rates depending on the location within the market. Like kiosks, counters are charged a flat income tax that does not vary with the level of activity, according to the *Informal Sector Income Tax Law*. All of the regulations outlined in the section on kiosks refer to counters as well.

79. Like kiosks, counters tend to be family-oriented businesses. Eighty to ninety percent of the counters at a typical indoor market are owned by individuals, and only ten to twenty percent by economic entities. Typical of informal distribution activities, counters are dominated by women, who occupy roughly three fourths of the 2,500 counters in Ulaanbaatar.

The Nucleus of Ulaanbaatar's Informal Sector: The "Black" Market

80. The name of the "Black" Market reflects its history more than its present. Although this market undoubtedly is a convenient place for thieves to fence stolen goods, and is notorious for pickpockets, the vast majority of the economic activity taking place in this single hectare of fenced land that the Mongolian comedian Batsuh had in mind when questioned about the definition of a market economy, is legal. Although it existed as a trading place prior to the abandonment of communism, and may not have been illegal even then, it was certainly "less free" as one of the managers put it. (The management prefers the name "central market" but most Mongolians still refer to it as the "black market.")

Box 9

Teacher: What is a market economy?
Pupil: I know this one! It's when a lot of people crowd into a fenced area, and push each other around, buying and selling stuff.

Batsuh, Mongolian Comedian & Social Commentator

81. Estimates of the popularity of the "black" market are staggering. According to estimates provided by the management, by *duureg* officials, and by the Ulaanbaatar City Administration, between 60,000 and 100,000 people (10-17% of Ulaanbaatar's population) visit the market on its busy days, Saturday and Sunday, half as many on weekdays.[80]

82. The "black" market was privatized in 1995, having been sold to a private trade company. It currently employees 120 people, excluding the thousands of vendors who come to the black market to sell their goods. The form of organization of the black market is similar to that of indoor markets — formal ownership, and informal occupation, of premises. (See Box 5.) As a privately operated entity, this market makes money by charging vendors, and by charging an entrance fee, although the former is more easily enforceable and provides more revenue than the latter. Importers who wish to park their containers in the area pay 9,000 togrogs per day. Trucks pay 6,000 togrogs per day. Individual vendors pay varying fees, from 300 togrogs to 3,500 togrogs per day, depending on the volume of business they do, although the management has difficulty, understandably, getting honest participation from vendors. The fees for the counter spaces at the market were originally established (recommended) by the Ulaanbaatar Price Consensus Commission. Soon after privatization, a secondary market for their counter spaces developed,

demonstrating the popularity of this particular hectare of land. The counter spaces were rented for 200 togrogs per day, at the time. Some renters would stay the night and resell the spaces the next day for ten times as much.[81]

83. The volume of economic activity at the market is unknown, but information provided by the management (and corroborated by our own counts) provide some indicators. On a given day at the "black" market one can expect to find about 150 containers of imported goods serving as their own store-fronts, and about 800 other vendors occupying official spaces, in addition to the hundreds or thousands of vendors, inside and outside of the fence, that do not officially pay their fees. Management estimates that the average container sells out in 1-2 weeks. If this estimate is accurate, then between seven and fifteen thousand containers flow through the market in the course of the year.

84. Vendors at the market are subject to either the *Economic Entities Income Tax* or the *Informal Sector Income Tax*, but compliance is limited. For small vendors, the informal sector income tax is collected by the management and forwarded to the tax authorities; economic entities deal directly with the tax authorities, and "self-assess" their profitability. The formal sector company that owns the "black" market must also pay taxes on its income — last year this amounted to 30 million togrogs of income taxes.

85. The "black" market plays a pivotal role in Ulaanbaatar's economy, both in the formal and informal sectors. It serves as the primary source of goods to be resold by Ulaanbaatar's kiosks, indoor markets, and retail shops. It serves as the primary outlet for importers, formal and informal, to cash in their imports quickly, with little overhead, and for cash. It also generates demand for other (informal) services, such as transport and porterage. Furthermore, the "black" market is only one of the outdoor markets in Ulaanbaatar, described here because it is the largest. There are also several outdoor food markets, technical markets, and direct competition is provided by the *Harhorin* Market, which became popular a few years ago when flooding cause the temporary closure of the "black" market. During the course of this study, 137 informals from the "Black" Market, the *Harhorin* Market, and the Technical Market were surveyed. Descriptive statistics from the surveys can be found in Appendix B.

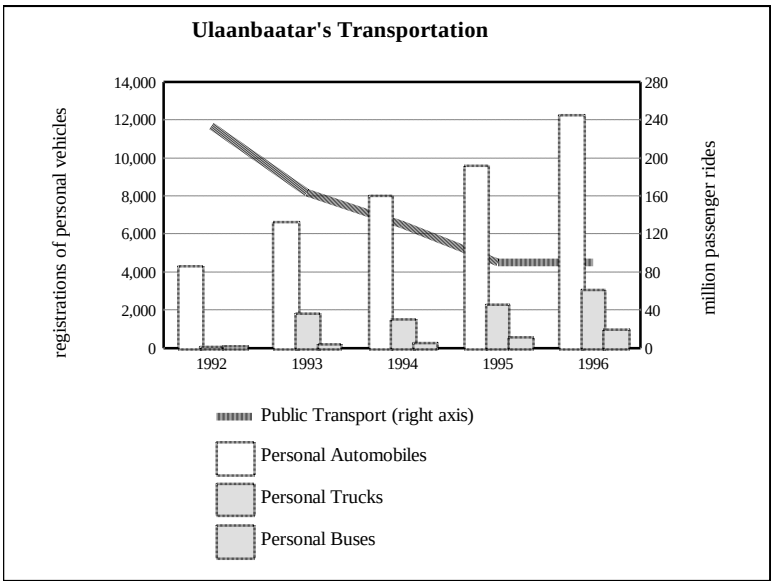

Figure 7. Source: Ulaanbaatar City Administration

Note: "Millions carried on public transportation" refers only to paying passengers. If there are relatively more free-riders (pensioners, children, and delinquents) now than in 1992, the decrease in "passenger rides" is exaggerated.

Informal Transportation

86. The modes of transport within Ulaanbaatar have changed greatly in the 1990s with the advent of private vehicle ownership. Public transportation on buses and trolley buses remains the favored mode of transport within Ulaanbaatar in terms of passenger-kilometers, but the explosion in private vehicle ownership is providing steady competition. (See Figure 7.) Informal buses and taxicabs are carrying an increasing

number of passengers. Similarly, the privatization of trucks directly to their traditional drivers has created an overnight pool of owner-operators that now supply Ulaanbaatar with freight-carrying services. This section of the appendix will provide an introduction to Ulaanbaatar's informal transportation. Particular emphasis will be given to taxicabs, 308 of which were surveyed for the purposes of this study.

Every Vehicle is a Potential Taxicab

87. A "taxicab" in Ulaanbaatar means simply a vehicle that will carry a passenger for money. In the early part of the 1990s, formal taxicabs (i.e. vehicles clearly painted or marked as taxis) were virtually non-existent. However, anyone who could afford it only had to wave to passing vehicles for a moment or two before one would stop to pick them up. At any point in time, there exists a fare per kilometer that is widely known and accepted by both drivers and passengers. (These fares are adjusted by the market periodically, in step with large and infrequent changes in the price of fuel. This price adjustment mechanism is a great example of a strong informal institution.) Every vehicle in Ulaanbaatar is a potential taxicab.

88. Taxicabs are subject to the *Informal Sector Income Tax Law*, and are required to pay a flat tax of 1,100 togrogs per month in the case of Ulaanbaatar passenger vehicles, more if the vehicle is large or carries passengers outside of Ulaanbaatar city, less if the vehicle calls some place other than Ulaanbaatar home. The Mongolian authorities have relatively more success in collecting the tax from vehicles that travel outside of Ulaanbaatar, since papers can be verified at the *aimag* border points. Within Ulaanbaatar, tax officials have the more difficult task of discerning those vehicles used primarily as taxicabs from those that are simply personal transportation. The Ulaanbaatar Tax Administration periodically cooperates with the Road Police, doing random checks of vehicles: those that appear to be carrying passengers are required to provide evidence that they have paid their taxes. Due to the high rate of moonlighting, only 37% of the taxicabs surveyed as part of this study said they are officially registered as taxicabs. Full-time taxicabs are somewhat more compliant. Among the subset that drive more than 45 hours per week, 74% are officially registered.

89. Taxicabs provide contrast to other forms of informal activity in several respects. First, driving a taxicab is very amenable to moonlighting, as discussed earlier. Second, the nature of competition is different: entry and exit are completely costless for anyone who owns a vehicle, and price competition only exists periodically when changes in the price of fuel spark changes in taxicab fares. Third, the return to driving a taxi represents a combined return to both labor and capital. These contrasts, and the apparent popularity of taxicab driving as an informal activity, motivated the survey of 308 taxicabs undertaken in February 1997. Some descriptive statistics from the survey are provided in Appendix B.

90. The rapid growth in the number of private vehicles in Ulaanbaatar has placed competitive pressure on the taxicab industry. Although the market-determined fares increase sharply each time the price of fuel is increased, the real return to driving a taxicab has been eroded by inflation and has fallen since 1993. Despite these competitive pressures, Ulaanbaatar's taxicab drivers, both part-time and full-time, make significant contributions to the local economy. The time that Ulaanbaatar's drivers spend operating taxicabs is equivalent to approximately 6,000 full-time equivalent jobs. The value of that time is even more telling. On an annualized basis, Ulaanbaatar's taxicabs contribute more than 21 billion togrogs to value added at current (3/97) prices. This amounts to roughly 3% of GDP for the entire country for 1996, or 9% of the Ulaanbaatar economy, after adjusting for inflation. This fraction of GDP seems quite large given that it represents only taxicabs, most of whom are part-time moonlighters, and only in the city of Ulaanbaatar — it does not include the lucrative market for travel to the *aimags*, trucks, buses, or any other informal activity.

Informal Freight Transport

91. Informal participation in the trucking industry is arguably a direct result of reforms. During privatization many trucks were privatized directly to the drivers, sometimes with payment taking the form of an agreement to provide services for some period of time. The new owners suddenly had the freedom to seek out work on their own schedules, and the responsibilities of finding their own customers. (See Box 10.)

92. Relative to other transport sub-sectors, trucking is less dominated by informals. The total number of registered trucks in Ulaanbaatar remains at roughly the level of 1991. However, the privatization of vehicles means that about 40% are now registered as personally owned, and 60% are registered as owned by organizations whereas in 1991 all were owned by organizations.[82] For Mongolia as a whole, roughly half of the trucks are registered to individuals, rather than organizations. Currently there are nearly 27,000 trucks registered in Mongolia, of which 7,500 are in Ulaanbaatar.

93. Informal trucks have seasonal patterns of work, going wherever there is demand for their services. Some drivers chose steady, albeit seasonal, employment. Summers are spent hauling materials for construction companies, autumns assisting with the harvest, and winters ferrying coal to the *ger* districts of Ulaanbaatar. Others prefer to park at one of the recognized meeting places in the city and wait for business to come to them, usually in the form of somebody changing apartments or offices. A half day spent hauling a single load of furniture for only a few kilometers — half a day waiting while the vehicle is loaded, and 15 minutes driving — can quickly fetch the driver 10,000 - 15,000 togrogs revenue. Other trucks choose to specialize in hauling to and from the "black" market, for which they must rent a space from the management for 6,000 togrogs per day.

Box 10. The Federation

When trucks and buses were privatized to their drivers, the new owners found that, frequently, ownership of a vehicle was not enough to ensure steady work. They found that customers prefer the perceived stability and assurance of results achieved by contracting with an organization, as opposed to an individual. (This is particularly true for state contracts doing the sort of work the drivers had done in the past.) Not long after the vehicles were spun-off into individual private ownership, their owners joined forces in an organizational arrangement referred to as a "federation." The vehicles in a federation remain owned by the individual drivers; the administration organizes contracts, a service for which their members pay dues.

94. Informal trucks are also subject to the *Informal Sector Income Tax Law*, paying 1,800 to 5,000 togrogs per month in taxes, depending on the size of the vehicle.[83] Whereas the tax authorities have difficulty sorting out taxicabs from automobiles for personal use only, there is no such difficulty with trucks, and the rate of compliance is believed to be higher.

Moving the Masses: Informal Busing

95. As a form of passenger transportation, informal buses have enjoyed a boom in Mongolia. Registrations of both private- and organization-owned buses have risen rapidly in Mongolia and in Ulaanbaatar. The number of registered organization buses has more than doubled and registrations of private buses have risen 66-fold since 1991. Buses registered to individual people now comprise 44% of Ulaanbaatar's buses. Like taxicabs, informal buses are subject to the *Informal Sector Income Tax Law*, paying 2,100 togrogs per month for travel within Ulaanbaatar, and 2,400 per month for travel between Ulaanbaatar and the *aimags*.

96. Informal sector buses often provide services that are unavailable on public transport. One popular city route served by informal buses takes advantage of the long east-west dimensions of the city. Traveling from downtown to the western micro-districts by public buses requires transferring buses part way. The informal upstarts make a business of carrying their passengers direct: profits are ensured by the high occupancy per kilometer, and passengers get to their destinations more quickly than on public transportation. The immense popularity of Ulaanbaatar's "black" market, discussed elsewhere in this report, provides a ready market for many informal buses. Clustered around the city, one will find lines of informal buses waiting for passengers to travel to the market. From the center of the city, passengers now pay 200 togrogs to ride to the "black" market, twice the current fare on public transport. The profitability of this route has led to persistent difficulties with traffic jams, and this is the single greatest concern voiced by district officials about the nucleus of Ulaanbaatar's informal economy. Plans to build a new road were met with resistence by residents of the nearby *ger* district, and ultimately abandoned. The current administration of the Chingeltei *duureg* has taken the approach of rationing vehicle traffic on the roads around the "black" market, conducting technical inspections and issuing permits valid only on alternating weeks.

97. Among the economic, political, and personal freedoms gained by Mongolians in the 1990s is the freedom to travel within Mongolia.[84] The relative ease of travel has increased the demand among Mongolians for inexpensive modes of transport, both for personal visits and for inter-aimag trading. Where the formal sector can not satisfy the demand, the informal sector takes up the slack. However, entry to the market is somewhat more difficult than entry into the Ulaanbaatar city taxi or bus market. Despite the greater freedom of movement among individuals, vehicles must still have a permit to carry passengers between *aimags*, and the *aimag* border checkpoints make this a difficult requirement to avoid. However, it doesn't seem a difficult rule to comply with. As long as the vehicle is deemed technically safe the necessary papers are readily granted. Indeed, the attitude of authorities toward informal inter-aimag buses seems refreshingly benign. Rather than viewing the informals as competitors, the authorities recognize the difficulties they have satisfying demand, and tend to welcome the assistance of informal buses, even providing directions for the routes where they are having the most difficulty meeting demand.[85] For travel to and from the *aimags*, a private bus need only pay their *Informal Sector Income Tax*, have their other registrations up-to-date, pass a monthly technical inspection, and arrive at the inter-aimag bus station *Teeveriin Tovchoo* for marching orders.

From Finance to Traditional Medical Healing Other Informal Sectors

98. This appendix has focused on informal distribution and transportation as examples of informal sector activities. However, this concentration should not be interpreted to mean that these are the only areas of informal activity in Mongolia. Informal manufacturing exists and is evidenced by the fluid market for materials and handicrafts at the "black" market and the other outdoor markets. Informal carpenters and interior decorators are said to be having a boom with the reallocation of apartments attending the privatization of housing. Street services, such as shoe shines and boot repair can be found clustered in areas of down-town Ulaanbaatar, and outside of various indoor and outdoor markets. Informal international trading seems to be on the decline, but nevertheless persists. Even financial services are increasingly provided by informals: difficulties in the banking sector are being met with an expansion of informal credit — newspapers devoted to advertisements are full of offers to lend money, and requests to borrow money, always with collateral and always at high interest rates.[86]

99. The *Informal Sector Income Tax Law* lists over thirty types of informal activities, each with their own monthly flat tax. This list is indicative of the breadth of Mongolia's informal sector, and it is fitting to close this appendix with a sampling of some other items on the list of "business activities and services whose income can not be determined every time:" (i) making souvenirs, decorations and games, (ii)

writing memorable words on souvenirs, (iii) gold and silversmith, (iv) growing and selling office plants and flowers, (v) repairing vehicles, (vi) repairing radios and televisions, (vii) repairing household equipment and furniture, (viii) teaching and training, (ix) typing, (x) taking photographs, (xi) playing games with payment, (xii) small scale trade of cigarettes and chewing gum, (xiii) packaging and delivery services, and (xiv) traditional medical healing.

Appendix B — Informal Sector Survey Methodologies and Descriptive Statistics

100. Seven hundred and seventy informals were surveyed in the course of this study. About three fourths of the informals were either taxicab or kiosk proprietors, and the remainder were informals operating from one of the outdoor markets or the street. This appendix will outline the survey methodology and the issues involved in estimating value added and incomes. Copies of the survey instruments and tables of descriptive statistics follow at the end of this appendix.

Taxicab Sample and Population

101. A survey of 308 taxicabs was conducted in February, 1997. The purposes of conducting the taxicab survey were many, among them, the desire to be able to aggregate upward and estimate the rough contribution of taxicabs to value added, employment, and income. The difficulties of making such estimations are the same difficulties facing any study of an informal activity — the nature of the activity itself, and its informality, makes it difficult to precisely identify the population and scope of the activity. The difficulty is accentuated with the study of taxicabs, since they are all really just vehicles that are sometimes used for personal use, sometimes for official use, and sometimes as taxicabs, all in varying degrees.

102. Taxicabs are mobile enterprises, able to go where there is demand for their services. As such, the sampling of taxicabs for an exploratory study such as this needn't be complicated. The researchers simply hailed down passing vehicles, and by definition anyone who stopped is a taxicab at least part-time. An attempt was made to obtain approximately equal number of observations from each of the six districts within Ulaanbaatar City,[87] at varying times of the day and night.

Adjusting for Over-Sampling Frequently Driven Vehicles

103. The drivers were asked how many hours they operate their vehicle as a taxicab in a week. The responses to this question provide a sample distribution with a mean of 37.11 hours per week used as a taxi. However, this sample distribution is biased: the more frequently a vehicle is used as a taxicab, the more likely it will be sampled. A technique was developed to adjust the sample frequency to an estimated population frequency, where "population" here means the population of vehicles that are *ever* used as taxis. The derivation of the adjustment technique follows.

104. Let F_i be the proportion of the population represented by vehicle i, and let H_i be the number of hours in a week that a surveyed automobile is driven as a taxi. Since each observation comprised an equal fraction of the observed sample, and H_i is proportional to the probability of being sampled, we can say $F_iH_i=F_jH_j$, for all i,j. (I.e. if the sample contains an equal number of cars driven 10 hours as 20 hours, we would expect the actual population to have twice as many cars driven 10 hours as 20 hours, in order for each to occupy equal proportions of our sample.) Choosing a reference observation to be the one with the highest value for hours driven, H_{max} and rearranging yields $F_i/F_{max} = H_{max}/H_i$. Rearranging further, summing over i, and recognizing that F_i must sum to 1 yields:

SUM from i F_i = SUM from i {H_{max}} over {H_i} F_{max} = 1

F_{max} = 1 over {SUM from i {H_{max}} over {H_i}}

Remembering that $F_i = F_{max}\ H_{max}/H_i$, and canceling out the H_{max}, we have:

F_i = {1 over H_i} over {SUM from i 1 over {H_i}}

105. This equation provides the basic adjustment for the population frequency. Figure 8 illustrates the frequencies of hours driven in a week, generated by the sample survey (labeled "sample"), and adjusted using the procedure outlined above (labeled "population"). [Figure 8 could not be translated into Word format. Figure 8 is available from the author.]

106. The effect of the population adjustment is to reduce the mean average hours used as a taxi in a week from 37.1 to 17.8. As can be seen from Figure 8, the proportion of vehicles used less than, say, 20 hours per week is much larger after adjusting for the sample selection bias, consistent with the notion that many vehicles are driven as taxicabs only part-time.

107. In the preceding paragraphs we derived estimates related to the population of vehicles that are *ever* used as taxicabs. We must also account for the fact that some vehicles are never used as taxicabs — such vehicles would not be sampled at all, and would therefore not be accounted for in the above population adjustment. Now we address the issue of the true population of vehicles within Ulaanbaatar, and the methods used to estimated what percentage of vehicles are *never* used as taxicabs.

108. The number of vehicles in Ulaanbaatar is enumerated by the Ulaanbaatar City Road Police, and can be broken down into two categories depending on the type of "numbers"[88] with which each vehicle is registered. There are frequent, random, checks of registration papers by the traffic police, annual fees for registrations, and annual technical inspections, so it is reasonable to assume that the number of vehicles registered is very close to the actual number of vehicles in operating condition. The population of taxicabs is a subset of the population of vehicles. If we can estimate the proportion of vehicles that are *never* used as taxicabs, we can identify the population of taxicabs to which we can apply the frequency derived above and arrive at aggregates.

109. Two approaches were used to address the question of how many vehicles in Ulaanbaatar are never used as taxicabs. The first method is to make educated guesses and solicit the guesses of Mongolians. (The final estimates of aggregates are not terribly sensitive to this guess, so broad upper and lower bounds are acceptable.) Mongolians universally estimate the percentage of vehicles never used as taxis to be very close to zero, and certainly no higher than 10%. The second approach is to fit the population distribution derived above to a standard distribution, and estimate the proportion of vehicles used as a taxi zero hours per week, based on the fit of the distribution. Experiments with the Poisson distribution, choosing the Poisson parameter to optimize the fit over the relevant portion of the population distribution derived above, suggest a distribution whose mode is not zero, but some positive value. This suggests that the adjusted mode provides a clear upper bound for the percentage of vehicles that are never used as taxicabs. The mode, over the relevant range, comprises 14% of the adjusted population. Adjusting for the addition of the "zero" category, the predicted upper bound for the percentage of vehicles in Ulaanbaatar that are never used as taxicabs is 12%.[89]

Value Added from Ulaanbaatar's Taxicabs

110. The Survey of Taxicabs sought to provide estimates of the average value added (earnings after subtracting the costs of fuel, garage, and repairs) when a vehicle is driven for a fixed period of time. Given that a large proportion of vehicles are used only infrequently as taxicabs, many drivers had difficulty estimating how much they would earn during an average eight-hour day, and instead provided answers for their typical day, regardless how many hours is in their typical day. We can therefore accept the sample average Tg 8,810 as a clear lower bound for the average value added for an average vehicle over an eight-hour day. Recognizing that full-time taxicabs are in a much better position to know the

value added of driving continuously for an eight-hour day, it is believed that a better estimate of the average value added for an eight-hour day is Tg 13,100.

111. Having estimated the distribution of the frequency with which vehicles in Ulaanbaatar are used as taxicabs, and having estimated the value added by a typical taxicab on a typical day, we can estimate the total value added of taxicabs in Ulaanbaatar by finding the product of the number of automobiles in Ulaanbaatar, the percentage that are ever used as taxicabs, average hourly value added, and adjusted average number of hours used as a taxicab in a week. Multiplying this product by 52 weeks per year, yields a conservative estimate of 21.8 billion togrogs value added per year at current (3/97) prices. An even more conservative lower bound could be obtained by using actual sample average value added, downwardly biased by part-timers, and an estimate that 20% of vehicles are never used as taxicabs, yielding a more conservative estimate of value added equal to 13.6 billion togrogs per year at current prices.

Average Income of Taxicab Drivers

112. Estimates of income of taxicab drivers differ from the estimates of value added in three ways. Each is straightforward and will be described briefly.

113. First, since the estimates will be used mainly to provide an income comparison to other types of occupations, the estimates were generated with sub-samples of drivers who could be described as full-time taxi drivers. The income estimates were calculated for three subsets of drivers, those who drive less than 25 hours per week, those who drive 25 to 45 hours per week, and those who drive more than 45 hours per week. The latter group is the one best described as full-time taxi drivers.

114. Second, an adjustment was made to each driver's estimate of profitability in order to account for the fact that they are receiving a combined return on both their labor and their capital. For comparison to other types of occupations, it is necessary to impute foregone interest. The Survey of Taxicabs provides the data necessary for this computation. Drivers were asked to estimate the current market value of their vehicle, and the percentage for which the vehicle is used for personal use. For each vehicle, the imputed foregone interest was calculated as (percentage used as a taxi) x (value of the vehicle) x (monthly interest rate). Automobiles in Mongolia serve as fairly good stores of value, and tend to appreciate roughly in line with inflation. The interest rate used in the above computation should represent the real difference between (i) the interest that would be obtained if the auto were sold and the proceeds put in another use, and (ii) the rate of appreciation of the vehicle which is closely tied to the dollar exchange rate. A conservative estimate of the opportunity cost — conservative in the sense that the estimate errs on the high side — can therefore be approximated by the deposit rate paid by the Trade & Development Bank on foreign currency time deposits, deposits which currently earn about 0.6% per month. Allowing an arbitrary 0.4% for risk — thus double counting some of the cost of risk since we are already subtracting the cost of garaging — yields an estimated opportunity cost of 1% of the value of the vehicle per month.

115. Third, the income numbers were adjusted to reflect a 200 hour month. This adjustment was particularly important for the full-time drivers, the most relevant for the estimation of incomes, since some drive many more hours than formal sector wage-earners work.

116. Lastly, the median adjusted income was calculated as a supplement to the mean. The two statistics, taken together, provide a picture of the income of the "typical" full-time taxi driver in Ulaanbaatar. Estimates of mean and median adjusted income for taxicabs in Ulaanbaatar are provided in the Table B1.

Table B1. Monthly Income of Taxis

	observations	mean	median
Overall sample	165	189,200	158,300
those who drive less than 25 hours per week	51	41,500	117,700
those who drive 25-45 hours per week	60	176,100	170,500
those who drive more than 45 hours per week	54	343,300	159,000

Source: Survey of taxicabs conducted by the author.
Incomes have been adjusted for full-time equivalent, and return on capital.

[THE TAXICAB SURVEY IS NOT INCLUDED IN THIS VERSION. FOR A COPY OF THE TAXICAB SURVEY, CONTACT THE AUTHOR.]

Kiosk Sample and Population

117. A survey of 245 kiosks[90] was conducted in March, 1997. As with the survey of taxicabs, the purposes of conducting the survey of kiosks included the desire to assess the impact of the growing number of kiosks on the economy of Ulaanbaatar in terms of aggregate contribution to value added, employment and income. The analysis of kiosks is easier than that of taxicabs in one important respect. The population of kiosks is easily obtained, and the sample selection problem encountered with taxicabs is not a problem with kiosks.

118. The sample of kiosks was selected to conform roughly in proportion to the number of kiosks located in the six districts of Ulaanbaatar.[91] Roughly 11% of the kiosks in Ulaanbaatar were surveyed. The number of kiosks in each district in both the population and the sample are depicted in Table B2, below.

Table B2. Kiosk Sampling

District	Kiosks in District	Kiosks Sampled
Bayangol	283	32
	12.7%	13.1%
Bayanzurh	551	70
	24.7%	28.6%
Chingeltei	185	20
	8.3%	8.2%
Han-Uul	158	21
	7.1%	8.6%
Songino-Hairhan	802	102
	36.0%	41.6%
Suhbaatar	250	0 (see notes)
	11.2%	0%

Source: Ulaanbaatar City Administration, and the survey of kiosks conducted by the author.

Value Added from Kiosks inUlaanbaatar

119. The estimates of value added were compiled in a straightforward manner, using the responses to survey questions and extrapolating for the population of kiosks in Ulaanbaatar. Each kiosk in the survey provided the average earnings after subtracting the cost of inventories, transportation, and rent, for both the average weekday and for the average weekend day. These daily averages were then weighted for each kiosks for the number of weekdays and weekend days that the kiosk is usually open for business to arrive at an average weekly value added for each kiosk. The sample mean for average weekly value added is 47,900 togrogs. Extrapolated to a year for 2,229 kiosks in Ulaanbaatar yields an estimate of value added of approximately 5.55 billion togrogs per year at current (3/97) prices.

Average Income of Kiosk Proprietors

120. The estimates of income were adjusted to reflect a 200 hour month. As with taxicabs, the median adjusted income was chosen to supplement the mean, in order to reduce the effect of the most profitable kiosks, and provide a better picture of the income of the "typical" kiosk in Ulaanbaatar. Estimates of mean and median adjusted income for kiosks in Ulaanbaatar are provided in Table B3, below.

Table B3. Monthly Income of Kiosks

	observations	mean	median
Overall sample	241	71,400	44,900
Bayangol	31	31,900	31,400
Bayanzurh	69	42,200	42,000
Chingeltei	19	25,100	25,000
Han-Uul	21	57,000	57,600
Songino-Hairhan	101	111,400	88,400
Suhbaatar	0	n/a	n/a

Source: Survey of kiosks conducted by the author.

[THE KIOSK SURVEY IS NOT INCLUDED IN THIS VERSION. FOR A COPY OF THE KIOSK SURVEY, CONTACT THE AUTHOR.]

Informal Sector Surveys of Outdoor Markets and StreetInformals

121. Two hundred and seventeen additional informals were surveyed in June of 1997. The purpose of the Generalized Informal Survey was not to provide estimates of overall value added, as little was known *a priori* about the population of the informals that pack the various outdoor markets and offer services on the streets. Rather, we sought to illuminate the great diversity of the informal sector, by providing some contrast to taxicabs and kiosks. It was the quest for contrast that drove the sampling procedures.

122. At least 40 informals were interviewed from each of Ulaanbaatar's three largest outdoor markets, the "Black" Market, the Technical Market, and the *Harhorin Market*. Also interviewed were 80 informals who made their livings on the streets of Ulaanbaatar.[92] The parameters of sample selection were simple: (i) We only interviewed informals who occupy their space on a daily basis; if they work from any sort of structure they were excluded from the sample. (ii) We only interviewed informals whose operations appeared to be "small." At the "black" market, for example, containers clearly failed this test and were excluded from the sample. (iii) We only interviewed people that appeared to be engaging in the activity regularly. This criterion excluded people who attend the markets occasionally to sell unneeded household items. (iv) No one under age 16 was interviewed. A large number of informals were thus excluded, but we felt that children were not likely to understand many of the questions. The sample for the Generalized Informal Survey is, then, not a random sample. It is probably biased toward low income - low productivity informals. The bias was intentional, designed to provide contrast to the high income - high productivity taxicabs and kiosks. The composition of the sample is presented in Table B4.

Table B4. Generalized Informal Sector Survey — Activities Represented in the Sample
Number of observations by location, type of activity, and category of product or service.

Location		Categories of Products or Services	
"Black" Market	57	Prepared foods (*buuz, hushuur*), baked goods, etc.	17
Harhorin Market	40	Dairy, meat, pine nuts, etc.	7
Technical Market	40	Art	3
Street	80	Individual cigarettes, soft drinks, candy, bread, etc.	37
	217	Newspapers	14
		Retailing food and carton cigarettes	20
		Ice cream	9
		Clothing	3
		Household goods	15
Type of Activity		Religious souvenirs	1
Selling own-produced goods	27	Oil and fuel (breaking bulk)	10
Selling new goods	109	Automobile parts and tools	17
Selling used goods	32	Books	15
Providing services	49	Boot and shoe repair, painting leather	29
	217	Shoe shine	9
		Measuring weight	3
		Photography	3
		Billiards (outdoor)	1
		Porter	4
			217

Source: Informal sector surveys conducted by the author.

[THE GENERALIZED INFORMAL SECTOR SURVEY IS NOT INCLUDED IN THIS VERSION. FOR A COPY OF THE GENERALIZED INFORMAL SECTOR SURVEY, CONTACT THE AUTHOR.]

Table B5. Characteristics of Informals from Informal Sector Surveys conducted by the author	<25 hours per week Taxicabs	45 hours per week Taxicabs	Entire Sample Taxicabs	Entire Sample Kiosks	Entire Sample Markets	Entire Sample Street Services & Vendors
Number of Observations (actual number may vary depending on the question)	99	101	308	245	137	80
Gender						
Male	90.9	95.1	91.9	36.6	52.6	48.8
Female	9.1	5.0	8.1	63.4	47.5	51.3
Age of Person Interviewed						
Mean	37.0	36.8	37.1	38.7	37.3	36.5
Married						
Yes	84.9	83.0	82.1	82.7	70.8	60.0
Education						
Primary	2.3	1.1	2.5	1.6	13.9	10.0
Secondary	13.8	34.1	27.1	34.4	55.5	35.0
Vocational	46.0	46.2	44.4	37.3	24.8	42.5
Higher	37.9	18.7	26.0	26.6	5.8	12.5
Another job or source of income						
Yes	72.5	16.8	43.1	32.2	22.6	18.8
Type of other job						
State	31.9	6.3	26.4	41.7	44.4	40.0
Non-State Formal Sector	43.5	43.8	42.4	35.4	22.2	20.0
Other Informal Sector	24.6	50.0	31.2	22.9	33.3	40.0
Other job consists of . . .						
Active Work	na	na	na	37.3	19.4	33.3
Pension	na	na	na	44.0	71.0	66.7
Leave	na	na	na	18.7	9.7	0.0
Monthly income from other job						
Mean	39.6	61.6	42.9	19.7	12.0	17.8
Hours per week at other job						
Mean	38.4	30.2	39.1	26.9	13.1	34.6

Table B6. Informal Ownership from Informal Sector Surveys conducted by the author	<25 hours per week Taxicabs	45 hours per week Taxicabs	Entire Sample Taxicabs	Entire Sample Kiosks	Entire Sample Markets	Entire Sample Street Services & Vendors
Number of Observations (actual number may vary depending on the question)	99	101	308	245	137	80
Officially Registered?						
Yes	20.2	74.0	44.6	100.0	33.6	51.3
Taxicab License Numbers						
Personal	71.7	75.0	74.8	na	na	na
Organization	28.3	25.0	25.3	na	na	na
Taxicab License Numbers						
Ulaanbaatar	96.9	99.0	97.7	na	na	na
Other	3.1	1.0	2.3	na	na	na
Ownership of vehicle/kiosk						
Self	64.7	58.4	62.3	64.5	na	na
Relative	5.1	10.9	9.7	22.9	na	na
Another private person	0.0	4.0	2.3	9.4	na	na
Economic Entity	24.2	26.7	21.4	2.9	na	na
Budget Organization	6.1	0.0	4.2	0.4	na	na
Form of compensation if not self-owned (kiosks only)						
Kiosk income goes to family	na	na	na	46.0	na	na
Paid a portion of the profits	na	na	na	26.4	na	na
Paid based on time worked	na	na	na	16.1	na	na
Other	na	na	na	11.5	na	na
Others who work at the kiosk...						
Spouse	na	na	na	35.1	na	na
Other relatives	na	na	na	53.1	na	na
Unrelated people	na	na	na	5.7	na	na

Table B7. Informal Working Arrangements from Informal Sector Surveys conducted by the author	<25 hours per week Taxicabs	45 hours per week Taxicabs	Entire Sample Taxicabs	Entire Sample Kiosks	Entire Sample Markets	Entire Sample Street Services & Vendors
Number of Observations (actual number may vary depending on the question)	99	101	308	245	137	80
Number of People Present (kiosks only)						
Mean	na	na	na	1.6	na	na
Hours open per week (kiosks only)						
Mean	na	na	na	86.1	na	na
Hours open on an average . . .						
Weekday	na	na	na	12.9	na	na
Saturday	na	na	na	12.2	na	na
Sunday	na	na	na	11.8	na	na
Hours worked on an average day (markets and street informals)						
Mean	na	na	na	na	7.9	7.2
Days worked in an average week (markets and street informals)						
Mean	na	na	na	na	5.4	6.4
Months of the year worked (markets and street informals)						
Mean	na	na	na	na	8.4	8.2
Person-hours per week occupying kiosk						
Mean	na	na	na	113.0	na	na
Person-hours per week procuring inventory						
Mean	na	na	na	16.6	na	na
Hours used as taxi in a week.						
Mean	14.0	62.8	37.1	na	na	na
Percentage personal use, not as a taxi.						
Mean	50.3	22.9	37.3	na	na	na
Only person using vehicle as a taxi						
Yes	88.8	89.1	89.6	na	na	na
Hours used as taxi with anyone driving.						
Mean	34.3	40.7	42.1	na	na	na

Table B8. Informal Income and Expenditure from Informal Sector Surveys conducted by the author	<25 hours per week Taxicabs	45 hours per week Taxicabs	Entire Sample Taxicabs	Entire Sample Kiosks	Entire Sample Markets	Entire Sample Street Services & Vendors
Number of Observations (actual number may vary depending on the question)	99	101	308	245	137	80
Written records						
Yes	28.9	31.7	26.8	74.3	32.1	28.8
Daily profit...						
Overall	5.1	13.1	8.8	7.0	2.4	1.8
Estimated value of vehicle (thousands togrogs)						
Mean	4482.4	5759.6	4979.4	na	na	na
Nightly garage expenses (thousands togrogs)						
Mean	1.0	1.2	1.1	na	na	na
Weekly expenditure on . . .						
inventories (thousands togrogs)	na	na	na	103.8	na	na
transportation (thousands togrogs)	na	na	na	5.0	na	na
other non-wage expenses (thousands togrogs)	na	na	na	3.9	na	na

Table B9. Informal Perceptions of Employment Status from Informal Sector Surveys conducted by the author	<25 hours per week Taxicabs	45 hours per week Taxicabs	Entire Sample Taxicabs	Entire Sample Kiosks	Entire Sample Markets	Entire Sample Street Services & Vendors
Number of Observations (actual number may vary depending on the question)	99	101	308	245	137	80
Response to duureg census"Are you employed?"						
Yes	69.1	36.6	46.7	25.5	11.7	25.0
Among those not employed, the reason provided to the duureg						
1-illness, looking after someone	3.3	6.5	8.1	14.6	10.7	18.3
2-seasonal work	10.0	3.2	5.6	3.9	2.5	0.0
3-not finding professional work	26.7	30.7	27.5	16.3	23.1	21.7
4-fired, organization doesn't work	30.0	21.0	23.1	15.7	17.4	23.3
5-other ("no reason")	16.7	25.8	22.5	30.9	32.2	20.0
6-other (listed reason)	0.0	0.0	0.6	0.0	0.0	0.0
7-pensioner or student or disabled	13.3	12.9	12.5	18.5	14.1	16.7
Among those not employed, the percentage actively looking for job.						
Yes	33.3	33.9	32.9	15.5	46.2	45.0
Registration at the employment regulation office.						
Current	29.6	15.5	15.7	11.6	17.4	3.3
Previous, not current	11.1	22.4	15.7	16.1	9.6	20.0
Never	59.3	62.1	68.6	72.3	73.0	76.7

Table B10. Coverage of Health and Social Insurance from Informal Sector Surveys conducted by the author	<25 hours per week Taxicabs	45 hours per week Taxicabs	Entire Sample Taxicabs	Entire Sample Kiosks	Entire Sample Markets	Entire Sample Street Services & Vendors
Number of Observations (actual number may vary depending on the question)	99	101	308	245	137	80
Social or Health Insurance contributions from informal activity income						
Yes	24.2	52.6	37.7	41.6	31.9	42.5
Any coverage under Health Insurance						
Yes	69.4	56.6	62.9	54.7	43.5	45.6
Any coverage under Social Insurance						
Yes	66.4	44.4	55.1	38.2	13.2	16.3
Spouse covered by Health or Social Insurance						
Yes	56.8	53.6	53.5	36.7	24.1	21.3

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[1]"Micro Enterprise Development in Mongolia," Centre for Social Development, 1996, contains the most comprehensive treatment of the issues surrounding micro-enterprise to date. Earlier references are few. The ILO, 1994, reported "The emergence of an informal sector in Mongolia is a fairly recent development. No information is available as to the extent and quality of informal sector employment." p.12. And although it lacked an in-depth analysis of the informal sector, an earlier ILO report made the following argument that still rings true today: "the time is ripe for a more constructive attitude towards what may be seen as an emerging informal sector. Without condoning truly unacceptable behavior, the city should recognize the economic and social merits of street markets and promote them accordingly." ILO, 1992. p.30.

[2]The type of phenomena known as "the informal sector" is a close cousin of other areas of study, notably that of the "hidden economy." (Also referred to, sometimes with a slightly different spin, as the "underground economy," the "shadow economy," the "subterranean economy," or the "irregular economy.") The latter is usually used to refer to economic activities of any size that are hidden from authorities, especially for the purposes of evading taxes or regulations, while the informal sector is usually associated with a small scale of operation and low level of organization (as outlined below). There is certainly a connection between the informal economy and the types of regulations and taxes faced by formals, a major area of research in many countries, but the size of the operation and level of organization are defining characteristics of the informal sector, while they are not in the case of the hidden economy. This study will focus on the informal sector, addressing the hidden economy only briefly in various parts of this report.

[3]Mead and Morrisson (1996) quote Hernando de Soto: "The informal sector is like an elephant: we may not be able to define it precisely, but we know it when we see it." Mead and Morrisson use data on small enterprises in seven countries to examine, empirically, how much consistency there is across countries when attempting to apply a single universal definition of the "informal

sector." They find considerable "variability across countries in patterns of informality." (p. 1617).

ILO, 1993, also makes this point: "There is no general agreement on the exact meaning of 'informal sector.' The term is used in different contexts with different meanings and users of statistics may wish to define the sector for different analytical purposes. ... This broadness is essential to an international statistical definition of the informal sector, which has to encompass the different ways in which the informal sector manifests itself in different countries and provide flexibility in the adoption of more specific definitions at the national level." p. 25.

[4]The literature on the informal sector does provide a catalogue of features that are frequently associated with informality. Some defining characteristics used in empirical research by different scholars are: (i) the scale of operations, usually classifying enterprises with less than ten employees as informal; (ii) the use of self- or family labor; (iii) irregular and unstable income; (iv) the physical appearance of the enterprise structure, access to electricity; (v) the nature of the good or service being produced; (vi) the level of competition faced by enterprises; (vii) the level of technology, the labor-intensity of production, or the level of skills necessary for production; (viii) whether the participants have coverage under the social security system; (ix) whether the participants adhere to tax, health, labor, and other regulations. See Ahmad (1990) and Lubell (1991) for reviews of empirical studies.

[5]None of the activities are reflected explicitly in national accounts statistics. An *ad hoc* adjustment for taxicabs is included in statistics on the transport sector, simply by assuming every vehicle is a taxicab for 100 km per year and multiplying by the average price per kilometer. The estimates of value added derived in this report are much higher than those obtained through this *ad hoc* adjustment. Informal activity, in general, may be reflected in official statistics to some degree, as official statistics are based, in part, on the expenditure side of the SSO Household Survey of Income and Expenditure. To the degree that households spend money in the informal sector, and to the degree that this is reflected in the household survey, some informal activity is reflected in the aggregates.

[6]The surveys were conducted in cooperation with the SSO and the Ulaanbaatar City Administration.

[7]All references to Mongolian laws in this report are based on unofficial (informal?) translations.

[8]Another approach to measuring the size of the "unofficial economy" in formerly socialist countries that has received some attention of late is based on the level of electric power consumption. The technique follows from the belief that electric power consumption is frequently a better measure of economic activity than official GDP, and the recognition that in most former socialist countries the decline in electric power consumption has been much smaller than the decline in official GDP. (Dobozi and Pohl 1995.) The macro-electric approach views the difference as reflective of the size of the unofficial economy. (Kaufmann and Kaliberda 1996.) The macro-electric approach is not appropriate for Mongolia, primarily because the well-known difficulties of the energy sector have made electric power deliveries a misleading indicator of demand. Indeed, if one applied the macro-electric approach to Mongolia, one would arrive at an estimate that Mongolia's unofficial economy was *negative* 24% of overall economic

activity in 1996. (Between 1989 and 1996, electric power consumption fell by 47%, whereas official real GDP fell by only 13%. Statistics are from SSO 1997.) For this reason, the macro-electric approach will not be presented in the text.

[9]Political subdivisions of cities and provinces, respectively.

[10]Formerly known as a "Labor Exchange."

[11]The 0.5% contribution is a portion of a larger contribution covering pensions, disability, etc.

[12]The law also provides for a minimum benefit of 75% of the minimum wage.

[13]See, for example, Beleva (1995), Earle (1995), Commander, et al (1995). For an opposing view, see Boeri (1994).

[14]There is some evidence from other transition countries that those who have exhausted their benefits tend to stop reporting to labor office. SeeBoeri (1994) for Eastern Europe, and OECD (1993) for Poland.

[15]These trends are similar, albeit at smaller magnitudes, for the rest of Mongolia, consistent with the notion that the informal sector is primarily an urban phenomena. Indeed, it should be noted that Ulaanbaatar is home to 27% of Mongolia's population, 37% of the "not employed," and only 19% of the officially unemployed.

[16]The relationship between the three groups Employed, Not-Employed, and Able-bodied People of Working Age is not exact. Students over the age of sixteen are not included in either the employed or the not-employed categories, and the number of people employed may include working children and working pensioners. Indeed the number of working pensioners and working children has nearly doubled since 1990 — if they were netted out of total employment, the decline in officially employed people would be even larger.

[17]For Mongolia as a whole the numbers are: unemployment as registered at theEROs was about 55,400 at the end of 1996, whereas the census of December 1996 counted 227,100 as not-employed, 128,500 of which "without any reason."

[18]It should be noted that such a drastic change in labor force participation in such a short period of time would be highly unusual — the period during which the US labor force participation rate changed by an equal percentage was thirty years.

[19]For simplicity, some categories were grouped together. For example, the Annual Labor Force Balance distinguishes between those who are watching children under three years old, those watching children greater than three years old, those caring for old people, and people who are not working because of a temporary illness. These were all grouped together in the informal sector surveys. Some categories in the Annual Labor Force Balance (e.g., "released from prison," and "because of the peculiarity of spouse's work") were omitted from the informal sector surveys because they consistently represent small fractions of thenot-employed. However, survey respondent who selected the "other" category wrote a qualitative response, and

whenever the explanation matched one of the omitted categories, the response was recoded. So, responses of "other" on the informal sector surveys mirror very closely the category of "without any reason" on the Annual Labor Force Balance.

[20]The statistics quoted in this paragraph exclude moonlighters.

[21]Among the subset who report to the *duureg/soum* that they are not employed, 20% to 30% say that the reason they provide is "other" which ultimately gets placed into the category "without any reason." It should also be noted here that 60-75% of the informals who consider themselves not-employed have never been registered at the ERO. This is appropriate, since they are clearly economically engaged, but it serves as further evidence that participants in Mongolia's informal sector are largely omitted from both employment and unemployment statistics.

[22]References to the household survey refer to the months of October and November, 1996. "Formal Income" is defined to include wages and salaries, pensions and benefits, rental income, loan income, and aid. "Informal Income" is defined to include income from selling agricultural products and raw materials, income from selling non-agricultural individually made products, income from individual services, profit from trade, and other income. Note that this definition of informal income is different from that of "individual activities" used by the SSO in publications.

[23]The reference to "unemployed people" in this section refers to "number of unemployed people whose age is possible for labor," question number 23 on the SSO Household Survey.

[24]But as the latter estimate includes moonlighters, some of those counted here as "engaged in informal activity" are already considered employed in the official statistics. Excluding moonlighters and pensioners, it is estimated that informal employment is between 16% and 26% of Ulaanbaatar's officially recorded employment.

[25]These estimates excluded pensioners.

[26]It should be noted that if one adjusted the estimate for taxicabs using the procedure outlined in Appendix B, then the estimated number of not-employed informals per employed informal would be higher. The range would be between 3 and 6 not-employed informal per employed informal, rather than the more conservative 2 to 6 presented in the text.

[27]That is, it was assumed that each of the three types of informals surveyed is representative of some proportion of the population of informals in Ulaanbaatar. If each makes up no less that 20% or the population, then the range of possible values for the true mean of the overall population becomes 3 to 4.6.

[28]One may argue that some of those seventeen thousand people are in fact not participants of the informal sector. However, several points need to be made. First, many studies in the literature on the informal sector consider the legal form of organization to be the most important defining characteristic of the informal sector; non-corporate forms of organization, for which there is a legal existence separate from the individuals, are part of the informal sector by definition. (See, for example, ILO 1993, p.16.) In Mongolia, sole proprietorships are no longer being registered by the authorities as a legal form of organization. Sole proprietorships were registered under the

Economic Entities Law of 1991 (amended in 1993). But even then, the law maintained that sole proprietors were fully liable for the activities of the proprietorship, and proprietors were forbidden from being members of any other economic entity, except for joint-stock companies. Furthermore, a similar strand of the literature on the informal sector uses the number of employees as the defining characteristic of informality. The definition of sole proprietorship in the *Economic Entities Law* was "an economic entity whose owner alone, not in connection with a cooperative or a company, regularly engages in production or provision of services in order to supply himself with a permanent source of income." (Article 8.) Second, it is instructive to consider data for 1994 for evaluating how informal the "sole proprietors" of the Annual Labor Force Balance are. In 1994 the SSO together with UNIDO conducted a Census of Industrial Establishments. They found only 69 industrial establishments registered as sole proprietorships in all of Mongolia. (Gereltuya, et al, 1995) In the same year, over 18,000 people in Ulaanbaatar alone reported that they were sole proprietorships, and nearly half of them were in the distribution sector.

[29]For example, the low estimate is computed as follows. 17,706 accounted informals + (17,706*3) unaccounted informals = 70,824.

[30]A quote from ILO 1993 is pertinent here: "the population employed in the informal sector comprises all persons who work in one or more production units considered to belong to the informal sector, irrespective of whether this work is their main or secondary activity." p.13.

[31]Note that these estimates include pensioners, not only working age people.

[32]A slightly lower estimate of the proportion of households with income from micro-enterprise was found by Centre for Social Development (CSD), 1996. Their survey of 174 households in the *Songino Hairhan Duureg* during the winter of 95/96 found that 41% had some income from micro enterprise activities, as contrasted with the estimates of 47-51% presented in the text. The difference can easily be explained by a number of factors including the 10 month gap between the CSD survey and the referenced SSO household surveys, the difference in *duuregs* sampled, and statistical discrepancies.

The estimates of 30% and 33%, presented in the text, are based on SSO household survey data from October and November, 1996, respectively. As an illustration, the adjustment for October was made as follows. The probability that a household will have some informal income equals one minus the probability that the household has no informal income. The probability that a household has no informal income (approximately) equals the probability that a single member has no informal income raised to the power of the number of working age household members. Since 46.9% of households had some informal income, and the average household had 1.78 working age members, the estimate of employment in the informal sector equals one minus X, where X solves the equation: $0.469 = 1 - X^{1.78}$. Then 1 - X = 30%.

[33]The focus here is on the aggregate contribution of the informal sector to household incomes. The earnings of informal activities relative to formal activities will be discussed later in the report.

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[34]The sample of areas chosen is designed to be proportional to the fraction of population living in such areas, and includes nearly every *aimag* plus Ulaanbaatar. Within a given area, the households are selected at random from official records of households living in the area. (Thus recent migrants, likely candidates for informal sector labor, could not be sampled unless they were officially registered which is not a trivial task, especially in Ulaanbaatar.) The households are then surveyed on the details of their monthly income and expenditures.

[35]"Individual activities" are defined in the survey as including income from selling animal, agricultural products and raw materials, plus income from selling non-agricultural products produced within the household, plus income from providing services, plus rent income. Another category, commercial income, is sometimes listed separately but usually aggregated into the "other" category of income in published data. Commercial income refers to individual trading, international or domestic. Omitted from discussion here are the categories of pensions and allowances, and loan income. Loan income is only income in the sense of cash flow, since it really refers to money borrowed to supplement the household budget. It should be noted that the categories used for the analysis of trends were chosen according to the breakdowns presented by the SSO, and are different from the groupings of informal and formal income used later in the report.

[36]There is no doubt that the increase in the importance of individual activities is attributable in part to the privatization of herds and the income generation that animals have brought to rural households. But since the herds were largely privatized by 1993, the trend apparent in Figure 3 is more than just an artifact of reclassification of types of income. Household survey data, disaggregated to the level ofUlaanbaatar, are not available prior to 1995. During 1995 and 1996, there is no discernable trend in the importance of any category of income. However, for Mongolia as a whole, virtually all of the decline in the importance of wages and salaries transpired before 1995, so the lack of a recent trend forUlaanbaatar implies nothing about the overall trends during the transition period.

See Centre for Social Development, 1996, for a discussion of micro enterprise in rural areas.

[37]The results in this paragraph are nearly identical for both October (22% and 32%) and November (23% and 32%), 1996.

[38]See Porter and Bayer (1984), Gutmann (1977, 1979), and Feige (1979). This approach has also been employed by Suarez and Agastin, as cited in Alonzo (1991).

[39]"On Some Measures of Currency Regulation and Payment Discipline Enhancement," Resolution by the Ministry of Finance and Mongolbank, October 1, 1993.

[40]The survey included 15 street informals representing the relative low-end of the informal spectrum, and 15 kiosks representing the relative high end of the informal spectrum. See also note 66.

[41]See, especially, IMF (1996), pages 31-32, which argues that the share of demand deposits fell as deposits were shifted into higher-paying time and foreign currency deposits.

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[42]Indeed, a more elaborate variant of the currency ratio method employs an explicit econometric model of currency demand. (See Schneider 1997 for a description.) The lack of long time series data for Mongolia has motivated the use of the simpler currency-ratio method in this study.

[43]Using M1, as in the traditional currency-ratio method, results in much higher estimates. Using M1, Mongolia's underground economy was equal to about 56% of the "above ground" economy at the end of 1996.

[44]Kaufmann and Kaliberda cite the Berkeley-Duke research project on the USSR Second Economy conducted during the late 1980s, as well as Janine Braithwaite "From Second Economy to Informal Sector: The Russian Labor Market in Transition," World Bank mimeo 1994, for providing the estimates of 10-15% for 1989. They then used the mid-point of 12% for their baseline for applying the "macro-electric" approach to estimating the size of Ukraine's "unofficial" economy.

[45]Although this technique is usually motivated by the belief that participants in the "underground" economy prefer cash over bank deposits specifically so that they may hide income and avoid taxation, it is important to note that such motivation is not required. Informals may prefer cash simply because the level of activity does not warrant the transactions costs of dealing with banks. The simple currency-ratio technique can not discern the reasons that people use cash for transaction, it can only ascertain the degree to which such preferences, in the aggregate, have changed over time.

[46]The surveys of kiosks and taxicabs, undertaken as part of this study, support the contention that the informal sector is large in Ulaanbaatar. Utilizing extremely conservative assumptions, the contribution to value added of these two informal sector activities has been estimated to be sizable relative to official GDP, even though they represent only a minute fraction of Ulaanbaatar's informal activity. Ulaanbaatar's kiosks are estimated to generate value added equivalent to about ¾% of GDP for the entire country, or roughly 2.3% of the Ulaanbaatar economy. Ulaanbaatar's taxicabs, most of whom are part-time drivers and moonlighters, are estimated to generate value added equivalent to about 3% of GDP for the entire country, or roughly 9% of the Ulaanbaatar economy. See Appendix A for details about these and other informal occupations, and Appendix B for an explanation of the methodology used to estimate value added. Many case studies of micro entrepreneurship, including kiosks, can also be found in Centre for Social Development, 1996.

[47]For a discussion of how empirical studies of the informal sector reach wildly different estimates of the size of the informal sector, depending on assumptions, see Poapongsakorn (1991) for Thailand; Alonzo (1991) for the Philippines; and Porter and Bayer (1984) for a discussion of divergent estimates of the size of the "underground" economy in the United States, even within a single family of analyses (those using monetary aggregates).

[48]The project, "Research on the Consequences of Large-Scale Privatization in Mongolia," entailed a survey of 250 enterprises which had passed through Mongolia's large privatization program by mid-1996. The estimates quoted in the text are true for both Ulaanbaatar and for Mongolia as a whole. See Anderson, Korsun, Murrell, forthcoming.

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[49]As discussed earlier, those laid off from formal sector jobs may be entitled to unemployment benefits, but the benefits expire rapidly.

[50]The reference to "no skills" in this paragraph should not be confused with the reference to difficulty finding a "job to match their skills" mentioned in the previous paragraph. The latter, in the Mongolian language, implies in possession of specific, marketable, skills for which the respondent could not find a job. The former means the lack of any marketable skills.

[51] The official poverty line at the time of the survey was 8,000 togrogs per household member. However, the official poverty line tends to be changed very infrequently, such that the real poverty line declines over time followed by a large increase when the official poverty line is changed. If unadjusted, this would result in an apparent decline in the poverty rate over time, followed by a sudden jump in poverty. But the phenomena would only be an artifact of inflation. So, for the analysis of poverty in this section, a poverty line of 9,600 was used for October 1996, and 9,800 was used for November, 1996. These levels were determined by simple interpolation between two months during which the official poverty line was adjusted: February 1996: 8,000; February 1997: 10,400.

The estimates presented in the Box refer to November, 1996. In October, 1996, 38% were below the official poverty line (adjusted as above), but 54% would have been if they didn't have informal income.

The estimation of the number of children raised from poverty is computed by multiplying the actual number of children in the marginal households (those above the official poverty line only because of informal income) by the inverse of the proportion of Ulaanbaatar households sampled.

Using a Living Standard Measurement Survey (LSMS), the World Bank found an incidence of poverty in Ulaanbaatar in June 1995 of 35 percent. See World Bank 1996 for a detailed discussion of poverty in Mongolia.

[52]From SSO statistics, compiled from official police registrations.

[53]The lack of a market for urban land does not mean that urban land is completely unavailable for development. But the procedures for obtaining permission to build on land are relatively more nebulous and subject to the whims of local authorities than would be the case with private ownership.

The reference to utilities reflects the difficulties of adding new demands to an already stretched energy sector. The system of centralized heating in Ulaanbaatar means that any construction of a new building requires new heating connections; any connection of a new building, therefore, requires permission to supply heat to the new building.

[54]I.e., productivity is high in terms of value-added per full-time equivalent job. See the discussion of relative incomes below.

[55]The "Black" Market, the Harhorin Market, and the Technical Market were surveyed during the course of this study, providing 137 observations. See Appendix B.

[56]See the narrative on kiosks in Appendix A for details.

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[57]Prior to the adoption of the *Partnership and Company Law* in 1995, when the *Economic Entities Law* was still in effect, sole proprietors were also required to register as organizations. The *Partnership and Company Law* permitted sole proprietorships to continue operations, but no longer required new registrations. The implication was that a separate law governing sole proprietorships would be passed, but this has not happened yet.

[58]Ten million togrogs for companies with limited liability, and 30 million togrogs for joint stock companies. *Partnership and Company Law*, Articles 37 and 89.

[59]*Partnership and Company Law*, Article 11. The same article specifies that "in the case of disapproval, a partnership or company may lay a claim in the courts."

[60]The event preceded the adoption of the *Partnership and Company Law*, but the registration process under the *Economic Entities Law* was similar.

The insurance industry was completely unregulated at the time. Mongoldaatgal was the state monopoly insurance provider, and it was also its own regulator, a common (if unfortunate) situation in Mongolian industries where some regulation seems justified.

The story has a happy ending — the "Torgon Zam" insurance company is now providing competition in the Mongolian insurance industry — but it illustrates how excessive discretion can lead to unnecessary delays for formal entrants.

[61]An anecdote providing a good example of a reasonable regulation being implemented with considerable discretion and therefore slowing down formal sector development, was provided by the managers of one of the "indoor markets" in Ulaanbaatar. When the company set about obtaining the land and building permits necessary to construct what would later become the *Durvan Uul* indoor market, they encountered resistance from the authorities because the mode of construction (steel) was unfamiliar to them, and they proclaimed it to be too energy inefficient. Again, the story has a happy ending — the permits were ultimately granted, the building was constructed cheaply, and the market is the most successful in the eastern part of the city — but the free exercise of discretion delayed construction by several months.

[62]Sixty-five percent of the kiosks were owned by the person occupying the kiosk at the time of the interview. A further 23% were owned by relative. Of the kiosks that were not owned by the person interviewed, 46% had no formal compensation scheme, the profits from the kiosk merely reverted to the family.

[63]Specifically, those working under "arduous, noxious, and hot conditions" receive their bonus leave faster, and those working underground, faster yet.

[64]Many of the guarantees discussed here also apply to single fathers.

[65]Plans are underway to privatize some urban lands in 1997.

[66]The sample included 15 kiosks, representing the "high end" of the informal spectrum, and 15 street informals, representing the "low end." Results were nearly identical for kiosks as for the street informals. This survey was conducted by the author for the purposes of this study.

The results in this section are consistent with Centre for Social Development, 1996, whose field work suggested: "an informal credit and loan system operates readily within the informal sector, mostly between friends and relatives. ... It is interesting to note that none of the informants mentioned borrowing money from a 'money lender,' they always said family, friends and acquaintances, although the latter could be the equivalent. Pawn-brokers, called 'lombards,' do exist but these were never mentioned as a source of initial investment, they are primarily used for livelihood purposes." p.48.

[67]Seventy percent of those loans were taken out in 1997.

[68]Owing to the nature of the activities, many informals can avoid paying their tax. But the tax collectors are vigilant in Mongolia, and a large number of informals seem to comply with the rules. The percentages of a sample of activities reporting that they were registered are as follows: 100% of kiosks, 74% of full-time taxicabs, 63% of boot repairmen, 31% of vendors of used auto parts, and 0% of the petty retailers of chewing gum, cigarettes, and soft drinks. (All based on the informal sector surveys conducted by the author.)

[69]The relative stability of incomes also influences the incentives to engage in informal activities. Informal sector incomes are usually assumed (and empirically shown) to be less stable than those of formal sector employees. But some informal occupations may be more immune to the income erosion caused by inflation than is wage income. Specifically, informals engaged in distribution can adjust their prices, and their incomes, to keep pace with inflation, while the wages of employees in the formal sector lose spending power. Indeed, the distribution sector in Mongolia is one in which informals are flourishing.

[70]There are 8 official holidays. Annual leave ranges from 24 to 35 working days, depending on years of service. The law is less clear about sick leave. There also exists very liberal maternity leave, which applies to a subset of employees. The adjustments to formal sector income are based on 50 paid days away from work per year. The adjusted income of formal sector occupations are overstated somewhat if the true number is less than 50. It should be noted that the leave, holiday, and maternity leave are guaranteed for all (formal sector) employees in Mongolia, not just state employees.

[71]Social insurance contributions paid by employers are 18% of salaries. Health insurance contributions are currently 6% of salaries, at least half of which must be paid by the employers. For the purposes of this chart, it will be assumed that the employer pays the entire 6%.

[72]Incomes of informals working for foreigners have intentionally been omitted from discussion, here, as they would have distorted the overall picture. Mongolians working for foreigners, formally or informally, earn many multiples of the incomes displayed here.

[73]Described above.

[74]Figure 5 highlights the informal sector occupations that are specifically addressed in the *Informal Sector Income Tax Law*. Those with zero values are not specifically addressed, and are probably the occupations for which the law is most difficult to enforce. It should be noted that

while a state employee has no alternative but to pay the tax — it is withheld from pay — a participant of the informal sector may or may not be diligent in paying their taxes. The rates of compliance for some activities have been presented earlier. See also Table 1 and the tables in Appendix B.

[75]One local official interviewed said it helped if the application stated that they had many children and really needed the income to survive.

[76]As outlined in the employment section of this report, many kiosk operators do not consider themselves "employed" and are not reflected in the official counts of employment. But some kiosk operators do consider themselves employed, so we can not infer that the jobs created by kiosks are completely omitted from the official figures on employment in distribution.

[77]If the assumptions for this estimate are satisfied, a 95% confidence interval is 5.55 billion togrogs ± 17%.

[78]Some of the data provided in this section was generated by qualitative interviews with managers of indoor markets, but most was drawn from a survey of 43 indoor markets in Ulaanbaatar conducted for the purposes of this study. The survey was much more modest than the other informal sector surveys. Individual participants were not interviewed except on a very casual basis. The goal of the survey, rather, was to get a sense of the types of activities taking place and generate rudimentary estimates of the level of employment within such indoor markets.

[79]In addition to the large centers of*Dalai Eej*, *Durvan Uul*, and the like, are many other buildings offering counters for rent, although those in the smaller buildings tend to be oriented toward consumer goods rather than food products.

[80]Such estimates were based on various techniques, including the enumeration of official entrance receipts, weighted by the proportion estimated to crowd through without paying; visual sampling from nearby hills; counting traffic flows up and down the access roads. The estimates presented are for total number of visitors in a day, thus it should not be inferred that 100,000 people are ever there at the same moment.

[81]*Ardyn Erh*, September 22, 1995.

[82]There is a bit of a misnomer, deriving from direct translations. "Private numbers" means simply that the vehicle is registered to an individual. "Organizational numbers" means that a vehicle is registered to an organization (such as an economic entity), regardless of the ownership of the organization. The fact that, in everyday parlance, ownership by an individual is associated with "private" ownership, and ownership by any organization, including privately owned businesses, are placed in the separate class of "organization" ownership speaks volumes about the early understanding of "private ownership."

[83]The taxes are higher for transport betweenUlaanbaatar and the *aimags*.

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[84]Such freedom of movement is limited, relative to western countries — there remain border checkpoints between the*aimags* — but greatly expanded relative to Mongolia ten years ago. The inter-aimag checkpoints, where they exist, tend to concern themselves with documentation of vehicles, rather than that of passengers.

[85]This is true for transport within Ulaanbaatar, as well.

[86]As an indicator of the weakness of the banking system, a small service industry has developed to assist depositors who are having difficulty withdrawing their money from their bank accounts. For a fee of 1% for dollar accounts and 2% for togrog accounts, these service providers — some are economic entities and some are individuals — will get your money for you.

[87]Excluding Baganuur and Nalaih, which are administratively part of Ulaanbaatar but geographically well outside the city limits.

[88]License plates.

[89]0.12 0.14/(1+0.14)

[90]A total of 278 entities were surveyed. However, 33 observations have been removed from the analysis in this report because of the suspicion of researcher bias. Unfortunately, this means that Suhbaatar district, in downtown Ulaanbaatar, is not part of the sample. The effect of removing this district reduces all estimates of income and value added.

[91]Excluding Baganuur and Nalaih.

[92]The street informals were split evenly between the eastern and western parts of the city.