

Business Density, Entrepreneurship and Economic Well-Being

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I. Introduction

Economic well-being, defined in the spirit of Nordhaus & Tobin (1972) and Osberg & Sharp (2003), varies drastically across the U.S. 50 states.¹ In 1997, the average household income in New Jersey was more than 1.7 times that in West Virginia; the average unemployment rate in Alaska was more than 3 fold that in North Dakota; and the average poverty rate in New Mexico was 274 percent of Maryland's. The purpose in this paper is to investigate whether the prevalence of business ownership plays a role in economic well-being.

In addition, the paper also attempts to find the elements that support business activities and foster entrepreneurship. To do so, this paper establishes a new concept, business density, defined as the number of business firms per 1,000 persons. A similar concept, business participation, has been used extensively in government documents such as the Small Business Act. Nevertheless, there seems to be very little earlier work in which business density was an important factor in economic study, both theoretically and empirically.²

A nation's economic well-being has been one of deep concern to economists since Adam Smith. In *The Wealth of Nations*, Adam Smith was concerned about poverty among women, children and "the lower ranks" of the population: "No society can surely be flourishing and happy, of which the greater part of the members are poor and miserable."³ Massive unemployment was the central concern of John Maynard Keynes in *The General Theory of Employment, Interest and Money*, in which he argued for government policy to lower unemployment and increase output in the economy. Despite his radical criticism of government involvement in the economy, Milton

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¹ Osberg & Sharp (2003) develops the Index of Economic Well-being (IEWB), building on the concepts of Nordhaus & Tobin's Measure of Economic Welfare (MEW) and of Human Development Index (HDI) developed by United Nations Development Programme. IEWB takes account of four key components: 1) Effective per capita consumption flows, which includes consumption of marketed goods and services, government services, and adjustment of effective per capita consumption flows for household production, changing household economies of scale, leisure and life expectancy. 2) Net societal accumulation of stocks of productive resources, which includes net accumulation of tangible capital, housing stocks, net changes in the value of natural resources stocks, environmental costs, net change in level of foreign indebtedness, accumulation of human capital and R&D investment. 3) Income distribution—the intensity of poverty (incidence and depth) and the inequality of income. 4) Economic security from job loss and unemployment, illness, family breakup, and poverty in old age. For detail, see p. 12, http://www.csls.ca/reports/10-03-02_wider.pdf.

² The only recent publication mentioned about business participation in American was from Minority Business Development Agency, Department of Commerce: *The State of Minority Business—An Initial Analysis plus Policy and Research Implications*, September 5, 2001.

³ P. 181, Adam Smith (1776).

Friedman's discussion in *Capitalism and Freedom* related to a nation's economic well-being by considering issues such as "distribution of income," "social welfare," "old age and survivor's insurance," "the alleviation of poverty," and "economic stability." The crux of the debate among economists on the subject is not the concept itself but how to achieve economic well-being. The effort to achieve this often failed in the struggle of balancing economic efficiency and equity.

The Small Business Act of 1953 articulated a kind of balance between economic efficiency and equality, mandating that government programs "be utilized to assist in the establishment, preservation, and strengthening of small business concerns and improve the managerial skills employed in such enterprises, with special attention to small business concerns (1) located in urban or rural areas with high proportions of unemployed or low-income individuals; or (2) owned by low-income individuals; and to mobilize for these objectives private as well as public managerial skills and resources."⁴

The Act acknowledged that "certain groups in the United States own and control little productive capital because they have limited opportunities for small business ownership" and said it "is essential to provide for the well-being of this Nation by promoting their increased participation in the free enterprise system of the United States." Thus, the U.S. Small Business Administration (SBA)'s business development programs focused on providing "the opportunity for full participation in our free enterprise system by socially and economically disadvantaged persons" such as women and minorities.⁵ It "is essential if we are to obtain social and economic equality for such persons and improve the functioning of our national economy."

The contribution of Small Business Act of 1953 to economic thought is revolutionary. To obtain social and economic equality, the Act advocates a "teach a man to fish" approach by promoting a pervasive business ownership among a vast population, rather than solely adopting a Robin Hood approach, i.e. imposing government power to redistribute wealth from rich to poor. Small business ownership is protected by the U.S. legal system and fostered by the government. The Act (P.L. 163-83, Title II, Section 202) proclaims: "It has been the declared policy of the U.S. Congress that the government should aid, counsel, assist, and protect, insofar as is possible, the interests of small business concerns in order to preserve free competitive enterprise, to insure that a fair proportion of the total purchases and contracts for property and services for the government be placed with small business enterprises, and to maintain and strengthen the overall economy of the nation."

In his 1973 book, E. F. Schumacher also stressed the importance of small business ownership in a nation's economic well-being.⁶ "The essence of private enterprise is the private ownership of the means of production, distribution, and exchange," he wrote, and added that "private enterprise carried on with property ... is automatically small-scale, and local."⁷ Hence, the

⁴ The Small Business Act, Public Law 85-536, Section 2 (d) (1).

⁵ Minority groups "include, but are not limited to, Black Americans, Hispanic Americans, Native Americans, Indian tribes, Asian Pacific Americans, Native Hawaiian Organizations, and other minorities" (Small Business Act, Section 2).

⁶ E. F. Schumacher (1973), *Small is Beautiful: Economics as if People Mattered*, New York: Harper & Row.

⁷ Schumacher categorizes two types of private property: "(a) property that is an aid to creative work and (b) property that is an alternative to it." He believes that the former one is "something natural and healthy" but the latter is not, as

objective of this paper is to look at U.S. 50 states' business and macroeconomic data. Those two sets of data have been used in the paper to examine the role and contributions of small businesses, particularly of those owned by disadvantaged groups, in the nation's household income, economic growth, and well-being. The remainder of the paper is organized as follows: section II discusses observations and rationales that motivate the study and hypothesizes the inter-relationship between business density and economic well-being; section III explains the data and the methodology that was used for conducting the statistical tests; section IV highlights findings of the statistical analysis results; and finally, section V concludes the study.

II. Observations and Rationales

The Importance of Small Business

The majority of U.S. businesses are small.⁸ The importance of small businesses goes beyond their contribution to household income and wealth accumulation. They are the stabilizers of business cycle, the vehicle that brings disadvantaged groups into the American mainstream, and the driving engine of the nation's economy.⁹ "If small businesses have been vital to America's economic development, they have perhaps been even more important as a component of American culture. More so than in other nations ..."¹⁰ As early as 1837, people observed that business is the very soul of America. "The love affair of most Americans with business has focused especially on small business. From the time of Thomas Jefferson to the present, many Americans have seen the owners of small businesses as epitomizing all that is best about the American way of life."¹¹

Studies indicate that small businesses, including those owned by women and minorities, have made important contributions to U.S. job creation and economic growth over the past several decades when data sources became available to researchers.¹² For instance, between 1992 and 1997, the number of women-owned firms increased by 16 percent compared with 6 percent growth in the total number of U.S. firms.¹³ Between 1982 and 1997, the number of minority-owned businesses increased 238 percent in a period when nonminority-owned businesses

it is "the private property of the passive owner who lives parasitically on the work of others." For more detail, see Schumacher, 263-264.

⁸ According to Office of Advocacy, U.S. Small Business Administration, small firms represent more than 99.7 percent of all employers in the U.S. in 2002 (see <http://appl.sba.gov/faqs/faqindex.cfm?areaID=24>).

⁹ Blackford (1991) points out, "Small businesses have always played significant roles in America's economic evolution." Prior to the mid-1800s, small businesses were the norm in the U.S. From the middle 19th century many big businesses emerge in fields where new technologies permitted economies of scale in the production and/or distribution of goods. While their relative share of America's industrial output declined, small businesses continued to grow in absolute numbers.

¹⁰ Blackford (1991), p.XIV.

¹¹ Blackford (1991), p.XIV.

¹² Among many other studies, *Are Small Firms Important? Their Role and Impact* (Edited by Zoltan Acs) is one example.

¹³ U.S. Census Bureau, *Women-Owned Businesses*, 1997.

increased 38 percent.¹⁴ At the same time, small businesses in the United States are still encountering significant challenges.

Women's entrepreneurship continues to be an area of small business growth. The female share of the U.S. population is about 51 percent. Women have increased their education levels and today represent a competitive force in the labor market and business community (Tables A1 and A2). Women own more than one quarter of U.S. businesses. Yet, in terms of business sales, women-owned businesses merely share about 4 percent.¹⁵

Running a business requires both human and physical capital. Small businesses in general and disadvantaged groups in particular often have shortfalls in both the income and education needed to succeed.¹⁶ The survival rates of small firms reflect these deficiencies: fewer than half of all new businesses with positive payrolls survive. Survival rates for new minority-owned firms, particularly new Black-owned firms, are often lower.¹⁷

African and Hispanic Americans constitute the two largest minority groups in the United States, and they face the toughest challenges in owning and operating businesses. Poverty has shadowed the Black population throughout U.S. history. Nearly 41 percent of African American families were below the poverty line in 1966, compared with less than 10 percent of White families and 13 percent of families of all races. By 1999, the poverty rates for these three groups were 23 percent, 8 percent and 10 percent, respectively.¹⁸ The result of this persistent poverty for the Black community has been a lack of physical capital.

Since 1970, the gap in education between Hispanics and their White, Black, and Asian counterparts has been widening. "Hispanic educational underachievement is dramatized by the large number of individuals who lack any high school education."¹⁹ For Hispanic immigrants, entry into the U.S. economy has often entailed taking low-paying jobs and foregoing education. A relatively large share of Hispanic adults have advanced no further than 9th grade, and relatively few have been able to take advantage of post-graduate education (Table A1).

Hispanic and African Americans constitute more than 26 percent of the total population and often reside in large metropolitan where low-paid/low-skilled jobs and public housing and transportation are available. Poverty and unemployment are relatively severe here, particularly during economic downturns.

¹⁴ Office of Advocacy, *Minorities in Business, 2001*.

¹⁵ See Office of Advocacy, U.S. Small Business Administration (2003), *Dynamics of Women-Operated Sole Proprietorships, 1990-1998*.

¹⁶ See Blackford (1991), p. XVI.

¹⁷ Office of Advocacy, *Minorities in Business, 2001*, p. 22. About 47 percent of the businesses with positive payrolls that started in 1992 survived until at least 1996. The survival rate for new White non-Hispanic-owned businesses was 48.7 percent. For new Black-owned businesses, it was 34.7 percent and for new White Hispanic-owned businesses it was 44.9 percent. For businesses started by Asians and other minorities, the survival rate was 50.4 percent.

¹⁸ Murthy, Vasudeva (2002), "Macroeconomy and the Well-being of Low Income African American Families," *Journal Of Economics And Finance*, Vol. 26, No. 3.

¹⁹ Marta Tienda (2002).

Business Density

Widespread business participation has been found to be important in a nation's economic well-being.²⁰ First, business owners possess production and business know-how to participate in the production processes that both create jobs and add to the total value of gross domestic product (GDP). Second, business participation creates the most effective market information system for determining what is to be produced, for whom, and at what price. Third, business participation generates a resilient productive environment in which entrepreneurs can afford to take risks in creating new products and new markets and in which continuous technological progress can be sustained at minimum cost. Finally, the level of opportunity available to Americans to create and develop new businesses is indicative of a high degree of freedom and political democracy; the result is a high degree of economic efficiency.²¹

Table 1-Business Firms, Population and Business Density

Year	Business Firms (Number of Firms) /2	Population (in thousands) /3	Business Density (Number of Firms per 1,000 population)
1879 /1	300,000	29,000,000	10.34
1929	3,029,000	121,769,000	24.87
1940	3,318,900	131,955,000	25.15
1950	4,008,700	151,871,000	26.40
1982	12,059,950	231,664,432	52.06
1987	13,695,480	242,288,936	56.53
1992	17,253,143	256,514,224	67.26
1997	20,981,527	272,646,925	76.95
1998	21,287,904	272,646,925	78.08
1999	21,760,347	275,854,104	78.88
2000	22,182,499	279,040,168	79.50
2001	22,637,272	282,224,348	80.21

/1 See Parris (1968), p.27.
/2 The business firm data of 1929-1950 are from Parris (1968), p.38, 1982-2001 are from the U.S. Census Bureau.
/3 The source for population data: Bureau of Economic Analysis, <http://www.bea.doc.gov/>.

The small business participation in America has been prospering since the latter 18th century. Table 1 presents the evolution of business density, defined as the number of business firms per 1,000 of population in the U.S. for selected years. In 1879 there were about 300,000 firms that served the U.S. total population of 29 million—approximately 10 firms per 1,000 persons. In

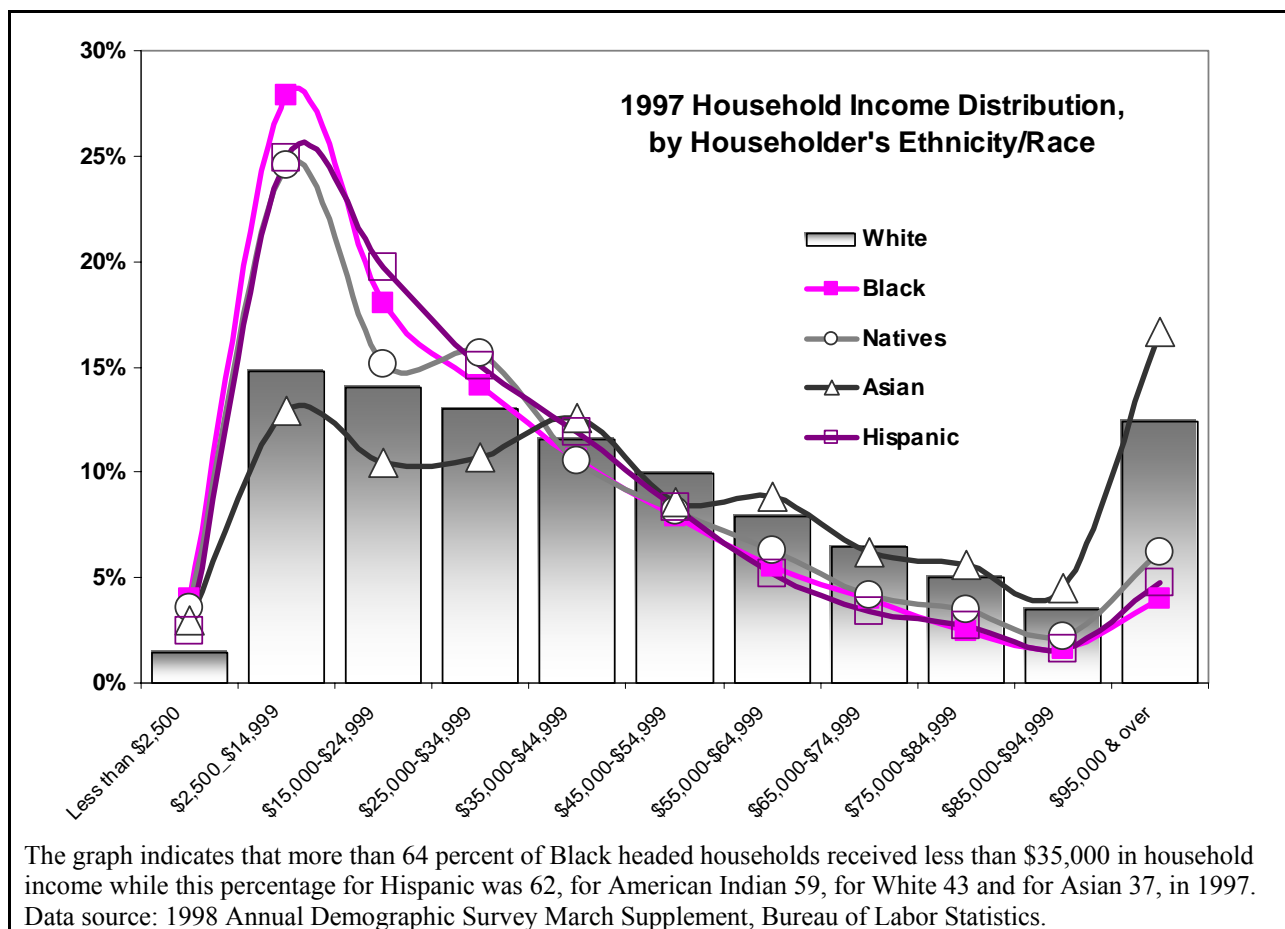
²⁰ *Are Small Firms Important? Their Role and Impact*, edited by Zoltan Acs' (1999) is the one of the best reference books that stress the relationship between business participation and economic well-being.

²¹ Productivities, hence economic efficiency can be obtained in a setting of high freedom of enterprise. For example, people might happily choose self-employment in order to be their own bosses rather than unwillingly working under others' supervision. During economic downturns, rather than being idled to be unemployed, people can open their own businesses to be productive. Instead of staying home full-time or hopping between family/children and job/career, child bearing-rearing women can do their business at their own schedule and contribute their skill and knowledge to the economy.

1929, this average number increased to near 25. In 1950, the business density was about 26; currently it is more than 80.²²

A recent study shows that American households that include business owners have higher incomes and more accumulated wealth than those without (Table 2).²³ For instance, in 1998, households with business ownership had an average income of \$115,629—three times that of households without minimum income—and average net wealth of \$1,011,924—six times the wealth of those without business income. Even in households with self-employment, which represents smaller enterprises, average household income was 48 percent higher and average household net worth was more than 1.6 times that of households without a business.

Figure 1-1997 Household Income Distribution, by Householder's Ethnicity/Race



²² Addison W. Parris, *The Small Business Administration* (New York: Praeger Publishers, 1968), 27; and U.S. Small Business Administration, Office of Advocacy, *Minorities in Business, 2001* (Springfield, Va.: National Technical Information Service, 2002).

²³ George Haynes (2001).

Table 2-Average Household Income and Net Worth of Women Headed Household
(in 1998 Dollar value)

	Income (Dollars)		Net Worth (Dollars)	
	1992	1998	1992	1998
Average (Total Sample)	45,576	53,121	208,480	278,876
Households without Business	38,077	43,999	125,164	171,904
Households with Business	90,682	115,629	709,659	1,011,924
Self-Employed	59,611	65,010	257,118	450,616
Owner Manager	100,693	123,718	822,627	1,063,989
Angel Investors	100,708	149,248	983,427	1,759,360
Other Angel Investors	202,437	423,793	2,495,442	4,172,997
Women-Headed Households (Total)	22,355	23,941	98,166	127,636
Women-Headed Households with Business	41,926	60,892	356,404	739,600

Notes:
Household income is the sum of wages and salaries, investments, government transfers and other sources.
Household net worth is the sum of financial and non-financial assets less liabilities.
A self-employed business is business owner and manager with one or fewer employees.
A small business manager is a business owner and manager with 1-499 employees.
Angel investors are business owners with no active management responsibilities.
Other angel investors are business owners that provide some management to other investments.
Source: George W. Haynes, Charles Ou and Anna Heidema (2001). The table was compiled from data in the Survey of Consumer Finances.

Table 3-1997 Business Firms, Population and Business Density, by Racial/Ethnic Groups

Racial/Ethnic Group	Business Firms (Number of Firms)/1	Population /2	Business Density (Number of Firm per 1000 persons)
Non Hispanic White	17,782,901	194,746,145	91.3
African American	823,499	33,989,243	24.2
American Native	197,300	2,325,820	84.8
Asian & Pacific Islander	912,959	10,135,106	90.1
Hispanic	1,199,896	29,182,493	41.1

/1 U.S. Census Bureau: Survey of Minority-Owned Business Enterprises, 1997.
/2 Bureau of Labor Statistics: Current Population Survey, 1998 (provides 1997 population data).

Despite the progress, the distribution of American household income by ethnicity and race reflect continuing challenges (Figure 1).²⁴ In 1997, about 64 percent of Black householders had an annual income below \$35,000, compared with 62 percent of Hispanic, 59 percent of American Indian/Other Native, 43 percent of White and 37 percent of Asian and Pacific Islander households. The pattern of household income distribution corresponds roughly to the pattern of business participation among the different groups (Table 3). On average, the business density for

²⁴ The Office of Advocacy can provide more recent data of income distribution (up to 2002). Presented here, however, are 1997 data for comparability with 1997 business data, the latest data available up to date.

non-Hispanic white Americans was 91.3 in 1997, the latest year for which data are available. The corresponding numbers were 90.1 for Asian Americans, 84.8 for American Indians, 41.1 for Hispanic Americans, and 24.2 for African Americans. This is coherent with fact that African and Hispanic Americans made up the least affluent groups in the U.S.²⁵

Finally, states with a high rate of business density represent a small business ownership and entrepreneurship growth environment. This in turn produces a positive spillover effect: more entrepreneurs are likely to prosper where they can learn from their business peers, partners, or rivals.²⁶ States with high rates of business participation tend to have better business environments.

The Role of Government and Business Environment

Business participation thrives in a well-managed market system. A variety of economists have articulated a role for government in market management.²⁷ “Government can help and has done so for years through such general measures as antitrust policy and tax policy. Such actions have been supported by a broad consensus among policy-makers and the public at large,” Addison Parris noted in his *History of the Small Business Administration*.²⁸ History witnessed that government direct transfer payments may create an income/wealth effect discouraging people’s effort in labor or business activities. At the same time, government spending to assist businesses can be productive.²⁹ For the purposes of this paper, productive government spending includes total government spending per capita on education, libraries, hospitals and health, highways, natural resources, parks and recreation, sewer services, and solid waste management. In any event, government involvement in the marketplace ought to be carefully scrutinized.³⁰

In accordance with its congressional mandate, the SBA operates several programs to assist in the development, operation, and financing of small businesses. Two significant financing programs are the 7a and 504 Certified Development Company (CDC) programs. The 7(a) loan guaranty program provides loans to small businesses unable to secure financing on reasonable terms

²⁵ *Minority in Business, 2001*, and *Women in Business, 2001*, Office of Advocacy, U.S. Small Business Administration.

²⁶ For instance, after adopting a free market system in China since latter 1970s, Chinese people quickly instigated a trendy movement called “jumping into the ocean”—opening and running businesses. Business participants can be anyone from urban high school dropouts, rural “country girls” to scholarly college professors. This business participation profoundly changed China’s economic landscape: the economy grew drastically and the share of GDP created by the private sector has increased from nearly zero to two-thirds; people’s lives have been improved substantially.

²⁷ The government must play the role in such market management so that business owners are able to survive and compete on a level ground of fairness and justice. When antitrust laws and necessary regulations are in place, freedom for business entry and exit promote the job creation and encourage innovation in the economy (Baldwin and Johnson, 1999).

²⁸ P. 233, Parris (1968).

²⁹ See Bates (1990). Economists categorize government spending as productive and non-productive. Government productive spending can be positively associated with GDP and non-productive spending might not be. More detail please see Barro (1990), Barro and Sala-i-Martin (1992), and Lowrey (1990).

³⁰ For instance, Jonathan J. Bean published books that are strongly critical about SBA. On the other hand, Professor Deane Carson praised government’s role in fostering small businesses.

through normal lending channels. The agency has no funds for direct lending or grants: the program operates through private-sector lenders that provide loans guaranteed by the SBA. The 504 CDC program provides growing businesses with long-term, fixed-rate financing for major fixed assets, such as land and buildings. A certified development company is a nonprofit corporation set up to contribute to the economic development of the community.

III. The Data: Further Observation

Unless otherwise explained, the data set for the statistical analysis in this paper consists of the business survey data of U.S. Census Bureau and the macroeconomic data of the Bureau of Economic Analysis of U.S. Department of Commerce. Data used for analysis in the main text of the paper also include those of the Bureau of Labor Statistics of U.S. Department of Labor. The data provided in Table A3 are cross sectional among the 50 states of U.S. that reflect their economic and demographic situations mostly in 1997. All variables are categorized into several subsets: business performance, small business, business density, government policy, macroeconomy, and economic wellbeing (see the Appendix attached).

A Bivariate Correlations procedure was used for computing Pearson's correlation coefficient and Kendall's τ_{b} with their significance levels. Correlations measure how variables or rank orders are related. Before calculating correlation coefficients, the data was plotted for evidence of a linear relationship between two variables.

Pearson's correlation coefficient is a measure of linear association. Two variables can be perfectly related, but if the relationship is not linear, Pearson's correlation coefficient is not an appropriate statistic for measuring their association. Kendall's τ_{b} test is a nonparametric correlation test and was used frequently in the paper. It is because the data set is relatively small (50 observations) and with a large number of tied ranks (i.e., if we score the data and rank all of scores, many scores may have the same rank).

The paper first looks into indicators of economic well-being:

HOME—home ownership rate by state, based on 2000 census data;³¹

UEMP—state average unemployment rate in 1997;

PVTY—the 1997-1999 average poverty rate by state.³²

To target disadvantaged people and small businesses, two variables are introduced here:

MIR—1997 ratio of the minority population in total population by state; and

RSB—1997 ratio of small business, defined as the rate of firms with less than 500 employees in total state businesses.

Table 4 shows that states with larger populations of minorities (MIR) are significantly associated with lower home ownership rates, higher unemployment rates, and higher poverty rates. At lesser significant levels, the small business variable (RSB) has a similar correlation with those three

³¹ Please see <http://www.census.gov/hhes/www/hvs.html> for definition of home ownership.

³² Please see <http://www.census.gov/hhes/poverty/povdef.html> for detailed information about “How the Census Bureau Measures Poverty.”

economic well-being variables. These correlations partially may reflect the fact that the minority population and small businesses are concentrated in states, such as New York and California, with large metropolitan areas where home ownership would be costly, and where unemployment and poverty would be customary.

Table 4-Pearson Correlation Test: Disadvantaged Groups and Economic Well-Being

Economic Well-Being Variables	Variables of Disadvantaged Groups			
	MIR		RSB	
HOME	-0.4801	**	-0.2098	
	(0.0004)		(0.1437)	
UEMP	0.4624	**	0.3245	*
	(0.0007)		(0.0215)	
PVTY	0.382	**	0.119	
	(0.0062)		(0.4105)	

This is the result of 2-tailed Pearson Correlation Test at the significance level indicated in parenthesis.
 * Correlation is significant at the 0.05 level (2-tailed).
 ** Correlation is significant at the 0.01 level (2-tailed).

Table 5-Kendall's τ_b Test: Business Density and Economic Well-Being

Economic Well-Being Variables	Business Density Variables							
	MAFM		MIFM		MOBR		WOBR	
PIP	0.1771		0.1429		0.1853		0.3486	**
	(0.0695)		(0.1432)		(0.0576)		(0.0004)	
TAX	0.0531		0.0482		0.0612		0.2212	*
	(0.5866)		(0.6216)		(0.5304)		(0.0234)	
GSP97	0.2539	**	0.1608		0.2327	*	0.2588	**
	(0.0093)		(0.0994)		(0.0171)		(0.0080)	
HHICM	0.1331		0.1314		0.1380		0.3698	**
	(0.1727)		(0.1781)		(0.1575)		(0.0002)	
GR9701	0.2833	**	0.1673		0.0237		0.1314	
	(0.0037)		(0.0864)		(0.8083)		(0.1781)	

This is the result of 2-tailed Kendall's τ_b test at the significance level indicated in parenthesis.
 * Correlation is significant at the 0.05 level (2-tailed).
 ** Correlation is significant at the 0.01 level (2-tailed).

In exploring of the role of business ownership in the U.S. economy, four business density variables are used to capture business ownership/participation in the 50 states:

- MAFM–Non–minority business density, defined as the total number of firms owned by non–Hispanic White persons per 1,000 non–Hispanic White persons in the state;
- MIFM–Minority business density, defined as the total number of firms owned by minorities per 1,000 minority persons in the state;
- MOBR–minority–owned business ratio, defined as the minority–owned business share of the state’s business population;
- WOBR–women–owned business ratio, defined as the women–owned business share of the state’s business population.

Five macroeconomic variables have been employed to represent the U.S. economic well-being:

- PIP–1997 average per capita personal income by state;
- HHICM–1997 average household income by state;³³
- TAX–1997 government tax revenue per capita by state;
- GR9701–average annual growth rate of personal income in the state between 1997 and 2001; and
- GSP97–1997 gross state product per capita, in 1997 current value.

Table 6-Kendall’s τ_{b} Test: Minorities and Their Contribution to Non-Minority Business

Non-Minority Business Performance	MIR		Minority Business Performance	MIR	
MAFM	0.2147	*	MIFM	0.0106	
	(0.0278)			(0.9134)	
MASL	0.2441	*	MISL	-0.0563	
	(0.0124)			(0.5638)	
MASLE	0.2278	*	MISLE	0.0531	
	(0.0196)			(0.5866)	
MAJOB	0.5869	**	MIJOB	-0.1673	
	(0.0000)			(0.0864)	
MAPPE	0.3322	**	MIPPE	0.0155	
	(0.0007)			(0.8737)	
MANES	0.0286		MINES	0.3453	**
	(0.7697)			(0.0004)	
MASLN	0.4629	**	MISLN	-0.0106	
	(0.0000)			(0.9134)	
<p>This is the result of 2-tailed Kendall’s τ_{b} test at the significance level indicated in parenthesis. * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).</p>					

³³ Table C97-00. Estimated Median Household Income by State: US 1997 (Estimates model 1997 income reported in the March 1998 Current Population Survey: http://www.census.gov/hhes/www/saibe/stcty/c97_00.htm).

The four business density variables are all positively correlated to variables of economic well-being. The positive correlation is very significant for women’s business participation: states with higher rates of women’s business ownership in 1997, such as Massachusetts and Maryland, tended to have higher personal income per capita, higher average household income, higher government tax revenues, and higher gross state product.

Besides MAFM, six variables that describe non-minority business owners’ performance have been designed for correlation tests:

- MASL—average sales of all non-minority firms \$ per firm;
- MASLE—average sales of non-minority employer firms (\$ per firm);
- MAJOB—average number of employees by non-minority firms per 1,000 population;
- MAPPE—average annual payroll \$ per non-minority employer firm;
- MANES—percent of non-minority non-employer firms in total non-minority firm; and
- MASLN—average sales of non-minority non-employer firms (\$ per firm).

Besides MIFM, the same set of six variables for minority business owners are MISL, MISLE, MIJOB, MIPPE, MINES and MISLN.

Table 7-Kendall’s τ_b Test: Business Density and Entrepreneurship Spillover

Business Environment Variables	Entrepreneurship Variables			
	ESTB		STUP	
MAFM	0.4547	**	0.3241	**
	(0.0000)		(0.0009)	
MIFM	0.2669	**	0.1657	
	(0.0062)		(0.0895)	
MOBR	0.0188		0.3976	**
	(0.8474)		(0.0000)	
WOBR	-0.0041		0.1951	*
	(0.9666)		(0.0456)	

This is the result of 2-tailed Kendall’s τ_b test at the significance level indicated in parenthesis.
 * Correlation is significant at the 0.05 level (2-tailed).
 ** Correlation is significant at the 0.01 level (2-tailed).

Table 6 clearly shows the significant contribution of minority to a better non-minority-owned business performance. States with larger minority populations have higher non-minority-owned business density, higher average sales of all non-minority firms; higher average sales of non-minority employer firms; higher average number of employees by non-minority firms; higher average annual payroll per non-minority employer firm. It is worth noticing that states with a higher rate of minority population seemed to be unable to show better minority-owned business performances.

Two variables are used to capture U.S. entrepreneurial business activities:

STUP—1999 business starts per 100,000 persons by state;³⁴ and
ESTB—1997 number of establishment births per 1,000 persons by state.

Table 7 indicates a positive spillover effect of business density on business startup activities. A higher rate of business startups seemed to have occurred in the states with higher business density.

To examine the impact of government policies on the business density, three government policy variables introduced:

SBALN—1997 current dollar amount of SBA loans (including 7a and 504 loans) per capita by state;

GPS—1997 government productive spending per capita by state; and

TPP—1997 current dollar amount of government transfer payments per capita by state.³⁵

The business environment apparently is important to business density and is described by the following four variables:

MIR—1997 percent rate of minority population in total population by state;

EDU—2000 state education assessment, defined as the percent of persons age 25 or older who had a bachelor's degree or higher as a share of the total population in the same age group;

INDX—The New Economy Index, including specific “criteria believed to be critical to a regional economy” such as educational attainment, exports, research and development, patents, business starts, and venture capital investment,³⁶ and

³⁴ Data source: Milken Institution 2000 New Economy Index.

³⁵ TPP consists of

1) (95% of total TPP) Government Payments to Individuals (GPI) including

1> Retirement & disability insurance benefits (it is roughly 41.47% of total GPI);

2> Medical Payments (41.48% of GPI);

3> Income Maintenance Benefits (10.96% of GPI);

4> Unemployment Insurance Benefits (2.22% of GPI);

5> Veterans Benefits (2.43% of GPI);

6> Federal Education & Training Assistance Payments consisting largely of federal fellowship payments (National Science Foundation, fellowships and traineeships, subsistence payments to state maritime academy cadets, and other federal fellowships), interest subsidy on higher education loans, basic educational opportunity grants, and Job Corps payments. (1.25% of GPI); and

7> Other, consisting largely of Bureau of Indian Affairs payments, education exchange payments, Alaska Permanent Fund dividend payments, compensation of survivors of public safety officers, compensation of victims of crime, disaster relief payments, compensation for Japanese internment, and other special payments to individuals. (0.18% of GPI)

2) (3% of total TPP) Payments to Nonprofit Institutions including State and local government educational assistance payments to nonprofit institutions and other State and local government payments to nonprofit institutions; and

3) (2% of total TPP) Business Payments to Individuals including personal injury payments to individuals other than employees and other business transfer payments.

³⁶ In their report, *The State New Economy Index*, Atkinson, Court, and Ward claim that in the middle 1980s through 1990s, “a ‘New Economy’ has emerged in the United States. Among its defining characteristics are a fundamentally altered industrial and occupational order, unprecedented levels of entrepreneurial dynamism and competition, and a dramatic trend toward globalization—all of which have been spurred to one degree or another by revolutionary advances in information technologies. As these developments have swept through our national economy, they have also been restructuring and reshaping the 50 state economies.” At the same time, the Milken Institute also published

FB00–2000 rate of foreign-born persons in total state population.

Table 8-Kendall's τ_b Test: Government Policy, Environment and the Business Density

Business Density Variables	Government Policy Variables						Business Environment Variables							
	SBALN		GPS		TPP		MIR		EDU00		INDX		FB00	
STUP	0.3209	*	0.0515	√	-0.139	√	0.3584	**	0.3010	**	0.4355	**	0.4957	**
	(0.0231)		(0.7227)		(0.3352)		(0.0002)		(0.0021)		(0.0000)		(0.0000)	
ESTB	0.5476	**	0.3579	*	-0.416	**	-0.0367	x	0.2290	*	0.1838	√	0.1723	√
	(0.0000)		(0.0107)		(0.0027)		(0.7066)		(0.0192)		(0.0598)		(0.0788)	
TFM	0.4302	*	0.2018	*	-0.1004	√	-0.2914	**	0.3681	**	0.1773	√	0.1165	√
	(0.0000)		(0.0388)		(0.3035)		(0.0028)		(0.0002)		(0.0695)		(0.2347)	
MOBR	-0.1069	x	-0.0302	x	-0.0237	√	0.8433	**	0.0982	√	0.2426	*	0.4399	**
	(0.2732)		(0.7569)		(0.8083)		(0.0000)		(0.3154)		(0.0130)		(0.0000)	
WOBR	-0.0155	x	0.1234	√	-0.1184	√	0.2588	**	0.3337	**	0.4093	**	0.4415	**
	(0.8737)		(0.2065)		(0.2252)		(0.0080)		(0.0006)		(0.0000)		(0.0000)	

This is the result of 2-tailed Kendall's τ_b test at the significance level indicated in parenthesis.

* Correlation is significant at the 0.05 level (2-tailed).
 ** Correlation is significant at the 0.01 level (2-tailed).
 √ The sign of correlation is consistent with the hypothesis.
 x The sign of correlation is not consistent with the hypothesis.

A Kendall's τ_b test analysis is reported in Table 8. SBA loans significantly correlate to business startups (STUP), establishment births (ESTB), and TFM—the state business density, i.e., the 1997 state total number of firms per 1,000 persons in the same state. The table indicates positive correlations between government productive spending, and business density variables.³⁷

reports in 2000 on New Economy Index, which ranks each state based upon 12 criteria that are believed to be critical to a regional economy. These criteria include:

- Educational Attainment: Percent of Population 25+ with BA or Greater, 2000
- Educational Attainment: Percent of Population 25+ with Advanced Degree, 2000
- Doctoral Scientists and Engineers: Percent of Population, 1997
- Exports: As Percent of GSP, 1999
- Federal R&D: Dollars Per Capita, 1997
- Industry R&D: Dollars Per Capita, 1997
- Academic R&D: Dollars Per Capita, 1997
- Small Business Innovation Research Awards: 1990-1998, Per 100,000
- Patents Issued: 1998, Per 100,000
- Business Starts: 1999, Per 100,000
- Venture Capital Investment: 1999, as Percent of GSP

Initial Public Offering Proceeds: 1997-1999, as Percent of GSP

The data set can be found at URL: http://www.milkeninstitute.org/pdf/new_economy_index.2000.pdf.

³⁷ GPS97 is defined here as total government spending per capita on education, libraries, hospitals and health, highways, natural resources, parks and recreation, sewer services, and solid waste management.

It also shows negative correlations between government transfer payments and business variables (seven out of ten business variables are showing negative signs).

IV. A Simple Model, Identification and Estimation

This session constructs a very simple model to show how business density affects economic wellbeing, of which output per capita is a key concern. Let $f(E, Q, N)$ be the production function indicating the total output Q produced by entrepreneurs E in the state resided with a total population N . It assumes that the elasticity of output with respect to entrepreneurs is $\alpha < 1$, and the elasticity of output with respect to per capital output is a constant, $(\lambda-1)/\lambda$, where, $\lambda > 1$. It also assumes that some other factor φ contributes into the total gross state production (GSP) with the elasticity $1-\alpha$:

$$f(E, Q, N) = \varphi^{1-\alpha} E^\alpha (Q/N)^{(\lambda-1)/\lambda} \quad (1)$$

Considering per capital total output, (1) can be derived as

$$Q/N = A \cdot (\varphi/N)^{1-\alpha} (E/N)^\alpha (Q/N)^{(\lambda-1)/\lambda} \quad (2)$$

Hence, per capital GSP becomes a function of two factors on the per capita basis:

$$Q/N = A \cdot (\varphi/N)^{(1-\alpha)\lambda} (E/N)^{\alpha\lambda} \quad (3)$$

Here, A is a Hicks-neutral technology multiplier the GSP per capita, φ/N can be factors exogenously determined and business density E/N is endogenously determined. For instance, it might be a function of education, government policy and entrepreneurship:

$$E/N = f(\text{education}, \text{government policy}, \text{entrepreneurship}) \quad (4)$$

Using EDU (person of persons age 25 or older who had a bachelor's degree or higher as a share of the total population in the same age group by state), GPS (government productive spending by state), MIR (percent rate of minority population in total population by state) and STUP (business starts per 100,000 persons by state) as instrumental variables to explain the endogenous variable E/N , the Two-Stage Least Square (TSLS) estimating system can be written as follows,

$$\log(Q/N) = B + (1-\alpha)\lambda \log(\varphi/N) + \alpha\lambda \log(E/N) \quad (5)$$

$$\log(E/N) = C + \xi \log(EDU) + \delta \log(GSP) + \eta \log(MIR) + \gamma \log(STUP) \quad (6)$$

The nonlinear ordinary squares regression estimates equation (6) and the results are reported in Table 9 to show how business density was affected by other exogenous variables. As can be seen, the business density is positively influenced by the state entrepreneurship (STUP), government productive spending (GPS), education (EDU) but negatively affected by the density of minority population.

The impact of business density on most economic well-being variables was estimated through E-View's TSLS procedure. Estimated results of the impact are reported in Table 10. The TSLS equations estimated are (5) and (6).

Table 9-Estimate Result of Business Density Function

Dependent Variable: LOG(TFM)				
Method: Least Squares				
Date: 12/31/04 Time: 14:37				
Sample: 1 50				
Included observations: 50				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.310290	0.851649	2.712724	0.0094
LOG(STUP)	0.140164	0.069332	2.021642	0.0492
LOG(EDU)	0.302895	0.084274	3.594179	0.0008
LOG(MIR)	-0.107752	0.020153	-5.346666	0.0000
LOG(GPS)	0.286095	0.096364	2.968911	0.0048
R-squared	0.599939	Mean dependent var		4.372111
Adjusted R-squared	0.564378	S.D. dependent var		0.142061
S.E. of regression	0.093763	Akaike info criterion		-1.801462
Sum squared resid	0.395614	Schwarz criterion		-1.610260
Log likelihood	50.03655	F-statistic		16.87073
Durbin-Watson stat	2.008732	Prob(F-statistic)		0.000000

Table 10-TSLS Estimation Results

Economic Well-Being Variables	Constant (t-Statistic)	log (MIR) (t-Statistic)	log (TFM) (t-Statistic)	D-W Stat (Probability)
log (GSP)	4.3755 (3.4527)	0.1612 (4.1230)	1.2444 (4.5242)	2.1450 (0.0000)
log (HHICM)	5.3781 (4.4805)	0.11169 (3.1547)	1.0957 (4.2057)	1.9921 (0.0004)
log (PIP)	5.3211 (4.6587)	0.1137 (3.2257)	1.0178 (4.1056)	1.990 (0.0005)
log (PVTY)	8.8527 (4.4414)	-0.0199 (-0.3234)	-1.4498 (-3.3513)	2.0859 (0.0016)
log (DPTY)		0.2390 (1.1453)	-0.1636 (-1.1836)	1.5646
log (INDX)		0.1754 (2.2738)	0.7665 (14.9991)	1.8172

Notes: The data used in these estimations can be seen from Appendix. Those six economic well-being variables were explained by one exogenous variable MIR and endogenous variable TFM. The instrumental variables used in the TSLS procedure were STUP, EDU, MIR and GPS.

According to Table 10, the impact of business density to economic well-being is robust. It estimates that raising total state business density by 1 percent increases per capita average gross state product (GSP) by 1.2444 percent, household income (HHICM) by 1.0957 percent, and personal income (PIP) by 1.0178 percent; while improving the overall state economic well-being (INDX) by 0.7665 percent. It is interesting to see the impact of business density on the state poverty level (PVTY) and disparity (DPTY) to be negative. It suggests that increasing business density reduces poverty and brings down the disparity between the rich and the poor.

V. Concluding Remarks

A people's economic well-being relies upon the strength of the economy. Behind a robust and balanced economy must be a vibrant market system, in which private business ownership is pervasive, small, and local. Using 50 United States business/firm data and macroeconomic data, this paper provides literature rationales and statistical testing results that demonstrate the significant linkage between business density and economic well-being at the state level. The paper estimates that increasing 1 percent of business density escalates 1.0957 percent of household income, 1.0178 percent of personal income and 1.2444 percent of gross state product. The estimated results also indicate that higher the business density brought about lower poverty and disparity between the rich and the poor.

This paper presents the author's continuous effort in revealing the importance of pervasive business ownership in people's economic well-being. Further theoretical works are necessary to identify the role of entrepreneurship and business density in the economy. The upcoming 2002 business survey data by the U.S. Census will provide opportunity for a panel data analysis in the near future. Because of the availability of business firm and macroeconomic data at the county level, the scope of the present data set and research can be much deeply extended.

In contrast to the environment that characterized much of the 20th century, during which "small companies rarely utilized sophisticated technology,"³⁸ technological progress increasingly permits 21st century small businesses to challenge and compete with larger companies. Entrepreneurs who start businesses in their basements or garages are able to reshape the landscape of industrial organization.³⁹ Stay-at-home mothers can open a business to develop computer software or offer brokerage services—and their earnings are increasingly competitive with the levels once achieved only by their male counterparts. Immigrants are able to capitalize on their connections with their native countries and create foreign markets for U.S. products and services. Minority business owners are able to hurdle previous economic barriers through business ownership. While large firms still have comparative advantages because of economies of scale, small businesses often can take advantage of greater flexibility and agility in developing innovative products and new markets.⁴⁰

³⁸ P. 72, Case (1990).

³⁹ For instance, many small firms have taken a larger and larger market share of AT&T business that had directly threatened the profitability of this giant communication company.

⁴⁰ Galbraith (1967).

America's business environment is "based on individual opportunity and grounded in the idea of small business ownership."⁴¹ As Parris observed in the early years of the U.S. Small Business Administration, "When small business thrives, a community is somehow a better place in which to live."⁴² If today's environment is an indication, business ownership and participation will continue to attract the whole world to the American Dream. The future will present challenges, such as continuous outsourcing, but U.S. small businesses nevertheless will find ways to embrace them as new opportunities. In sum, this look at interrelationships between business ownership and economic well-being provides support for the idea that, when it comes to American business, small is still beautiful.⁴³

⁴¹ P. 121 Blackford (1991).

⁴² Ibid, p. 232.

⁴³ In his book, Parris told of a 1946 study by two social scientists (Wright Mills and Melville Ulmer) on the relationship between the distribution of economic power and well-being. "They surveyed six U.S. cities, three dominated by big business and three by small business. The two groups of communities were then compared in two respects: the extent to which their economic life was balanced and the general level of civic welfare enjoyed by their citizens. Mills and Ulmer found that the communities dominated by small business had a better-balanced economic life and a higher level of civic welfare, defined as better health, housing, sanitation, distribution of income, education, recreation, economic stability, and so on."

Appendix: The Data

Explanation of Variables in the Dataset⁴⁴

DPTY	Disparity rate by state. This variable is designed by Economic Policy Institute using late 1980s through middle 1990s March CPS data (see http://www.epinet.org/). It is used to capture income disparity by state and is designed as changes of rate of top 20 percent over lowest 20 percent of household income.
8DU00	2000 state education assessment, defined as the percent of persons age 25 or older who had a bachelor's degree or higher as a share of the total population in the same age group
GEDP	Govern spending per capita on Education
Gemploy	Rate of local government employment out of total employment
GHHP	Govern spending per capita on hospitals & health
GHWP	Govern spending per capita on highways
GLBP	Govern spending per capita on libraries
GNRP	Govern spending per capita on natural resources
GPKP	Govern spending per capita on parks and recreation
GPS97	Government productive spending per capita; it is defined as (GEDP+GLBP+GHHP+GHWP+GNRP+GPKP+GSGP+GSWP)/population
GSGP	Govern spending per capita on Sewerage
GSP	1997 gross state product per capita, in 1997 current value
GSWP	Govern spending per capita on Solid waste management
HHICM	1997 average household income by state (Table C97-00. Estimated Median Household Income by State: US 1997 (Estimates model 1997 income reported in the March 1998 Current Population Survey.) http://www.census.gov/hhes/www/saipe/stcty/c97_00.htm
HOME	Home ownership rate by state, based on 2000 census data
INDX	The New Economy Index, including specific “criteria believed to be critical to a regional economy” such as educational attainment, exports, research and development, patents, business starts, and venture capital investment.
PIP	Average per capita personal income by state
PVTY	The 1997-1999 average poverty percent rate by state
RSB	Ratio of small business, defined as the rate of firms with less than 500 employees in total state businesses
SBALN	Current dollar amount of SBA loans (including 7a and 504 loans) per capita
STUP	1999 business starts per 100,000 persons by state
TFM	1997 total number of firms per 1,000 persons
TPP	Current dollar amount of government transfer payments per capita
UEMP	State average unemployment rate in 1997
WOBR	1997 women-owned business ratio defined as the women-owned business share of the state’s business population

⁴⁴ This set of data does not include D.C. and other U.S. territories.

Tables

Table A1-2001 Education Level of Population 25 or Older, By Ethnicity and Gender

Educational Level Category	Non-Hispanics		Hispanics	
	Male	Female	Male	Female
< 9th Grade	4%	4%	28%	26%
9-12th Grade	40%	42%	44%	44%
Some College and College Graduate	45%	45%	25%	27%
Post-Graduate	11%	8%	3%	3%
Total	100%	100%	100%	100%

Date source: Office of Advocacy, U.S. Small Business Administration, based on Current Population Survey, March Supplement 2002, Bureau of Labor Statistics.

Table A2-2001 Education Level of Population 25 or Older, By Race and Gender

Educational Level Category	White		Black		Natives*		Asian**	
	Male	Female	Male	Female	Male	Female	Male	Female
< 9th Grade	7%	7%	7%	7%	10%	9%	5%	10%
9-12th Grade	40%	42%	49%	48%	53%	49%	26%	28%
Some College and College Graduate	43%	44%	39%	40%	33%	39%	49%	50%
Post-Graduate	10%	8%	5%	5%	4%	4%	20%	13%
Total	100%	100%	100%	100%	100%	100%	100%	100%

* "Natives" include American Indian, Eskimo or Aleut.
 ** "Asian" includes Asian or Pacific Islander.
 Date source: Office of Advocacy, U.S. Small Business Administration, based on Current Population Survey, March Supplement 2002, Bureau of Labor Statistics.

Table A3. Data Set: U.S. 50-States Business Participation and Economic Wellbeing

STATE	STATE	GPS97	SBALN	MIR	EDU00	TFM	WOBR	MOBR	PIP	GSP97	INDX	STUP	HOME	HHICM	PVTY	DPTY
AL	Alabama	2581	26.1	27.71	0.190	65.30	24.4	9.9	20899	23859	40.2	48.4	0.725	30,790	15.1	0.9
AK	Alaska	4999	35.5	27.41	0.247	104.63	25.9	16.7	26898	43355	40.3	49.8	0.625	43,657	8.6	-1.8
AZ	Arizona	2260	82.9	31.46	0.235	69.46	27.0	13.2	21892	25812	60.8	41.9	0.680	34,751	15.2	4.3
AR	Arkansas	2326	27.8	18.91	0.167	74.36	22.0	6.7	19628	22737	10.0	63.1	0.694	27,875	16.4	-1.0
CA	California	2575	69.3	48.83	0.266	78.98	27.3	28.8	26521	32176	85.5	67.9	0.569	39,595	15.3	2.0
CO	Colorado	2671	72.1	20.96	0.327	102.10	28.0	9.0	27067	32246	82.7	72.6	0.673	40,853	8.6	0.0
CT	Connecticut	2691	58.4	18.83	0.314	84.80	25.5	7.2	34759	40297	83.7	57.6	0.668	46,648	8.4	3.7
DE	Delaware	3204	24.1	24.23	0.250	75.30	24.1	9.4	26807	41602	69.8	61.7	0.723	41,315	10.1	1.5
FL	Florida	2455	33.1	30.86	0.223	85.73	25.9	22.0	24869	25646	52.3	79.1	0.701	32,877	13.3	1.7
GA	Georgia	2626	52.1	32.85	0.243	73.98	25.6	15.6	23911	30674	59.8	65.3	0.675	36,372	13.7	0.1
HI	Hawaii	2590	20.4	70.91	0.262	77.57	27.5	57.7	25765	31806	42.0	45.1	0.565	43,627	11.9	-0.5
ID	Idaho	2657	71.6	9.49	0.217	89.34	23.5	4.7	20534	23921	47.3	35.4	0.724	33,612	13.9	1.7
IL	Illinois	2416	23.4	27.94	0.261	72.38	27.2	12.5	27950	32852	58.5	58.3	0.673	41,179	10.4	0.6
IN	Indiana	2549	19.8	11.56	0.194	69.42	25.9	5.5	23418	27363	34.0	46.8	0.714	37,909	8.3	0.1
IA	Iowa	3035	30.6	5.18	0.212	78.71	25.3	2.3	23499	28257	29.2	39.1	0.723	35,427	8.7	1.9
KS	Kansas	2799	34.9	13.04	0.258	80.97	25.6	5.5	24182	27700	42.5	37.2	0.692	36,488	10.5	1.8
KY	Kentucky	2177	17.7	8.71	0.171	71.23	23.4	4.5	20979	25687	24.8	38.3	0.708	31,730	13.8	1.6
LA	Louisiana	2574	23.2	36.05	0.187	66.88	23.9	14.1	20874	27945	27.5	39.7	0.679	30,466	18.2	-2.5
ME	Maine	2509	34.8	2.24	0.229	101.59	24.0	2.2	22134	24235	37.8	53.6	0.716	33,140	10.4	-0.3
MD	Maryland	2539	33.4	34.56	0.314	77.60	28.9	20.6	28857	29986	78.2	54.0	0.677	45,289	7.6	1.2
MA	Massachusetts	2585	37.1	14.69	0.332	86.27	26.6	7.3	30773	35909	92.3	40.9	0.617	43,015	10.9	1.3
MI	Michigan	2861	23.3	18.77	0.218	69.07	27.2	7.6	25509	28494	55.3	43.7	0.738	38,883	10.3	0.5
MN	Minnesota	3086	51.7	8.10	0.274	86.21	26.4	3.7	27086	31980	59.3	43.7	0.746	41,591	9.1	0.5
MS	Mississippi	2560	28.1	38.05	0.169	60.46	22.8	13.1	18580	21153	23.5	41.9	0.723	28,527	16.8	-0.6
MO	Missouri	2275	33.9	14.02	0.216	75.06	25.2	6.5	23926	28426	47.0	43.5	0.703	34,502	11.1	-1.6
MT	Montana	2769	101.1	8.63	0.244	105.27	23.9	3.6	19920	21247	37.0	46.2	0.691	29,672	15.9	0.6
NE	Nebraska	2917	30.5	9.86	0.237	82.28	24.1	3.3	24148	29219	30.2	55.0	0.674	35,337	11.0	0.6
NV	Nevada	2659	60.6	27.44	0.182	73.55	25.7	11.7	26789	33585	34.8	35.0	0.609	39,280	11.0	0.6
NH	New Hampshire	2228	74.6	3.35	0.287	97.31	23.6	2.8	27238	31503	71.2	36.9	0.697	42,023	8.9	0.6

NJ	New Jersey	2818	46.6	30.47	0.298	79.60	23.7	15.6	31720	36500	74.7	56.3	0.656	47,903	8.5	1.4
NM	New Mexico	3021	50.0	51.39	0.235	74.20	29.4	28.5	19641	26948	70.5	73.8	0.700	30,836	20.8	2.4
NY	New York	3159	29.9	34.10	0.274	80.93	26.1	19.6	29670	35557	74.5	43.3	0.530	36,369	15.7	3.2
NC	North Carolina	2691	20.7	26.33	0.225	74.51	24.5	10.8	23468	28945	53.8	87.2	0.694	35,320	13.0	0.9
ND	North Dakota	2673	60.1	6.90	0.220	85.06	22.5	2.8	20520	24488	30.2	71.9	0.666	31,764	13.9	0.2
OH	Ohio	2455	28.6	14.12	0.211	69.28	26.2	6.3	24772	28947	48.0	37.9	0.691	36,029	11.4	0.9
OK	Oklahoma	2352	32.9	19.96	0.203	83.23	24.0	10.2	20739	23547	31.2	38.2	0.684	30,002	13.5	1.0
OR	Oregon	2914	45.8	11.63	0.251	88.25	27.6	6.2	24385	29510	67.0	63.2	0.643	37,284	13.1	2.3
PA	Pennsylvania	2315	24.0	13.54	0.224	68.51	24.2	5.9	25635	28403	57.2	43.2	0.713	37,267	10.6	1.2
RI	Rhode Island	2453	89.3	12.68	0.256	78.93	24.6	5.9	25643	28682	62.0	44.6	0.600	36,699	11.4	1.6
SC	South Carolina	2631	19.6	32.15	0.204	67.45	24.7	11.8	20998	24729	32.3	51.2	0.722	33,325	12.8	0.6
SD	South Dakota	2423	37.9	10.10	0.215	88.40	21.5	2.5	21885	26561	19.5	39.0	0.682	31,354	11.7	0.1
TN	Tennessee	2367	25.7	18.52	0.196	75.63	24.0	7.8	22814	27593	41.5	48.2	0.699	32,047	13.2	-0.1
TX	Texas	2444	56.7	43.60	0.232	77.30	25.0	23.9	23756	30831	63.3	57.7	0.638	34,478	15.6	1.3
UT	Utah	2832	74.5	10.72	0.261	79.80	24.8	5.1	20613	25979	68.8	58.4	0.715	38,884	7.9	1.0
VT	Vermont	2738	67.6	2.41	0.294	113.00	25.2	3.1	23026	25970	64.3	46.3	0.706	35,210	9.6	-0.2
VA	Virginia	2531	24.6	26.76	0.295	70.30	27.5	14.9	26385	31059	68.0	36.6	0.681	40,209	9.8	0.5
WA	Washington	3102	39.0	16.20	0.277	78.85	27.5	9.6	26469	30881	79.0	58.6	0.646	41,715	9.2	1.8
WV	West Virginia	2475	21.8	4.29	0.148	61.42	27.1	3.8	19351	21044	16.3	40.7	0.752	27,432	16.7	1.3
WI	Wisconsin	2948	38.8	10.11	0.224	69.58	24.4	3.7	24481	28141	42.5	26.0	0.684	39,800	8.5	1.2
WY	Wyoming	3951	59.4	9.33	0.219	100.88	22.6	4.3	23360	33188	27.7	45.5	0.700	33,197	11.9	0.0

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