



*American Enterprise Institute for Public Policy Research*

# **Are Small Businesses The Engine Of Growth?**

Veronique de Rugy  
*American Enterprise Institute*

AEI WORKING PAPER #123, DECEMBER 8, 2005

---

[www.aei.org/workingpapers](http://www.aei.org/workingpapers)  
[www.aei.org/publication23537](http://www.aei.org/publication23537)  
#19341

## **Abstract**

It is a common belief among entrepreneurs and policymakers that small businesses are the fountainhead of job creation and the engine of economic growth. However, it has become increasingly apparent that the conventional wisdom obscures many important issues. It is an important consideration because many government spending programs, tax incentives, and regulatory policies that favor the small business sector are justified by the role of small businesses in creating jobs and is the *raison d'être* of an entire government agency: the Small Business Administration (SBA). This paper concludes that there is no reason to base our policies on the idea that small businesses are more deserving of government favor than big companies. And absent other inefficiencies that would hinder small businesses performances, there is no legitimate argument for their preferential treatment. Hence the paper suggests ending all small businesses' subsidies.

## Section 1: Introduction

It is a common belief among entrepreneurs and policymakers that small businesses are the fountainhead of job creation and the engine of economic growth. This belief appears with remarkable regularity in a wide range of public pronouncements (see Box 1). For nearly 20 years, political leaders of all stripes have taken as gospel truth that small companies are the chief drivers of economic growth and are responsible for about two-thirds of all new jobs created in the United States.

However, it has become increasingly apparent that the conventional wisdom obscures many important issues. First, the percentage of people who work at small companies has remained roughly constant over the last decade. This fact seems at odds with an economy in which small businesses account for the bulk of new jobs. Second, the real job growth comes not from people dreaming of being small business owners but from people committed to building big companies. The relatively few firms that start small and grow big account for most small firm job creation. Third, in our new “entrepreneurial economy,” it is not small businesses *per se* that are important, but flexible, innovative, risk-taking businesses, which tend to be small.<sup>1</sup> As such, the concept of “small business” as an analytical category seems rather useless.

Even though it is true that America benefits from a vibrant business sector, and many small businesses contribute to growth and innovation, is it possible that the small business job machine is a myth? It is an important question because many government spending programs, tax incentives, and regulatory policies that favor the small business sector are justified by the role of small businesses in creating jobs. In fact, this claim is the *raison d’être* of the Small Business Administration (SBA).

The paper will examine whether the pervasiveness of the belief that small businesses are the economy’s main source of job creation is warranted. Section 2 will show how this belief is the foundation for many government policies. Section 3 will expose the statistical fallacies that lead people to see job creation patterns where none exist. Besides it shouldn’t matter. Although job creation receives enormous attention in policy discussions, it is rather misplaced. The mere creation of jobs is not by itself an appropriate economic policy objective. Economic growth whether it takes the form of additional jobs or increase of productivity in existing jobs is all that matters. The paper concludes that there is no reason to base policies on the idea that small businesses are more deserving of government favor than big companies. Also, absent others inefficiencies that would hinder small business performance, there is no legitimate argument for preferential treatments. Hence this paper suggests ending all small businesses’ subsidies.

More importantly, it is precisely because a vibrant business sector is important that government subsidies and other preferential policies should be abolished. Market economies generate faster growth because resources are allocated on the basis of profit-maximization rather than political considerations. In the absence of government intervention, resources are quickly shifted from inefficient uses to more productive uses. Special programs designed to help small businesses are likely to hinder this process and will distract entrepreneurs and investors from focusing on serving the needs of consumers. Instead of preferential policies, the government can best help small business – and other segments of the economy – by creating an environment conducive to

productive behavior. This means low tax rates, low levels of regulation, and a stable legal structure that protects property rights.

### **Box 1. A Widespread Belief: Small Businesses are the Fountainhead of Job Creation**

“70 percent of all new jobs are created by small businesses. So when you're talking about running up the top two brackets, really what you're talking about is taxing the job creators here in America, and that's bad economic policy.”

President George W. Bush on the campaign trail in Blaine, Minnesota, September 16, 2004

“Small businesses represent the individual economic efforts of our Nation's citizens. They are the foundation of the Nation's economic growth: virtually all of the new jobs, 53 percent of employment, 51 percent of private sector output, and a disproportionate share of innovations come from small firms.”

*President Bill Clinton, Presidential Letter to Congress on Small Business, May 6, 1999*

“A vigorous small business sector is essential to a productive and competitive economy. For all of the talk in Washington about government creating new jobs, most of the new jobs actually created are in small private enterprises.”

President Ronald Reagan, February 4, 1982

“Small businesses are America's job creators. They create hope and opportunity for our entrepreneurs and workers. They are essential to our nation's economic prosperity.”

*Rep. Donald Manzullo (R-IL), Current Chair of the House Committee on Small Business*

“Representing more than 99% of all employers and creating 75% of net new jobs, small enterprises are a dynamic and vital part of the American economy.”

*Sen. Olympia J. Snowe (R-ME), Current Chair of the Senate Committee on Small Business*

“[S]mall businesses account for approximately 99 percent of all businesses in America, employ more than half the American workforce and create two-thirds of all new jobs.”

*Sen. John McCain (R-AZ) and Michael K. Powell, chairman of the Federal Communications Commission, The Washington Times, March 3, 2004*

“Democrats on the committee often say that small business is big business in America and this is because small firms are the main job creators. They create seventy five percent of all new jobs, and create over 50 percent of this nation's GDP.”

*Rep. Nydia M. Velázquez (D-NY), Ranking Member on the House Committee on Small Business*

“In fact in 2001, when big businesses were brought to the[ir] knees under the blows from the Sept. 11 attacks and corporate scandals, small businesses generated 100 percent of net new jobs for that year.”

*Press Release, National Federation of Independent Business, April 25, 2005*

“[M]ore and more people understand, every day, that most employers are small, that it is small business that creates the vast majority—about 70 percent—of net new jobs, that small businesses are the most innovative, and that they even represent the majority of all exporters.”

*Treasury Secretary John Snow, March 26, 2004*

“[T]he Small Business Administration reports that small businesses employ half of all private-sector employees and, more importantly, have generated 60 to 80 percent of new jobs annually over the last decade.”

*Federal Reserve Governor Mark W. Olson, June 23, 2005*

## **Section 2: Government Programs for Small Businesses**

During the 2004 Presidential campaign, President Bush and Senator John Kerry did not agree on much, but they did agree that it was a good idea to favor small businesses. For instance, Senator Kerry explained, “We've got to do something to help small businesses and self-employed people. Small businesses and self-employed people create 70 percent of all the new jobs in America.” And on the campaign trail in Sedalia, Missouri in September 2004, President Bush said, “If 70 percent of all new jobs are created by small businesses and we want to continue to expand our job base, policy ought to focus on small-business owners.”

By doing so they were following the steps of past presidents and presidential candidates. For instance, in his 1993 state of the union address President Clinton defended his big health care plan by explaining how it would benefit small businesses. He said “These rising [health-care] costs are a special nightmare for our small businesses—the engine of our entrepreneurship and our job creation in America today. We need to help them get back on their feet.” Responding to the President, House Minority Leader Bob Michel claimed that “We agree with the president that we have to put more people to work, but remember this: 80 to 85 percent of the new jobs in this country are created by small business. So the climate for starting and expanding businesses must be enhanced with tax incentives and deregulation, rather than imposing higher taxes and more governmental mandates.”<sup>2</sup>

As demonstrated in these quotes, the conventional wisdom about job creation by small businesses is frequently used to justify government programs favoring small businesses. Examples of small business favoritism include preferential tax treatment, special lending programs, a host of government funding and support services, the establishment of venture capital funds, and exclusion from various government-imposed regulatory requirements. Small businesses even have an entire government agency dedicated to their needs: the Small Business Administration.

To be sure large firms also receive abundant preferential treatments and subsidies. Listed here is a sample of the kinder treatment by government received by small businesses:

### **2.1. The Small Business Administration:**

This agency is dedicated to promoting small businesses through a series of government funding and support services. The efficiency of these programs has often been challenged, yet no politicians seem to have the will to abolish them. In fiscal year 2006, the total budget of the SBA will be roughly \$600 million. In addition, the SBA hosts many special lending programs for small businesses that might not be able to get loans from regular banks. These credit programs are authorized to guarantee \$42 billion in loans in FY2006.<sup>3</sup> In theory, most of these loans are zero-subsidy loans (see for instance the 7A loan program) and should not cost taxpayers anything. However, their design bears the risk that if the economy takes a downturn, the fee charged by SBA to guaranty these loans are unlikely to be sufficient to cope with the number of small businesses defaulting on their loans.

The SBA's non lending programs include:

- Office of Advocacy dedicated to protect small businesses' interests
- HUBZones encourages economic development in historically underutilized business zones
- Drug free workplace programs
- SBDCs grants to assist small businesses in setting up drug-free workplace programs
- Small Business Development Centers provide management and technical-assistance services to small businesses and potential entrepreneurs.
- Business Counseling & Training
- Assistance to Native American
- Assistance to Women
- Assistance to Veterans
- Assistance to exporters
- Assistance for Small & Disadvantaged Businesses

The SBA also funds disaster assistance. Its Disaster Assistance Loan is the primary federal program for funding long-range recovery for private-sector, nonagricultural disaster victims — provides assistance to businesses of all sizes and to individuals. For instance, after the September 11th attacks, the SBA provided over \$1 billion in disaster loans to businesses that sustained physical damage or economic injury. Small businesses in the immediate areas of the attacks and others nationwide that suffered related economic injury were eligible to apply for disaster loans. And even though many news stories have reported that this money has lead to waste fraud and abuse, after hurricanes Katrina and Rita destroyed the Gulf Coast last September, Congress promptly passed an emergency relief bill that authorized the SBA to distribute over \$400 million in loans to small businesses affected by the disaster.<sup>4</sup>

## **2.2 Regulatory Exemptions for Small Businesses**

Small businesses are exempted from many regulations that govern the labor market such as advance worker notification of layoffs, the filing of affirmative action reports, workplace safety and civil right. Here are some examples:

The Family and Medical Leave Act, which regulates unpaid leave, does not apply to employers who employ less than 50 people.

Title VII of the Civil Rights Act of 1964, which prohibits discrimination by race, color, religion, sex, and national origin, does not apply to employers with less than 15 employees.

The Age Discrimination in Employment Act of 1967, which prohibits age discrimination against individuals who are 40 years of age or older, does not apply to employers with less than 20 employees.

Title I of the Americans with Disabilities Act of 1990, which prohibits employment discrimination against qualified individuals with disabilities, does not apply to employers with less than fifteen 15 employees.

The Occupation Safety and Health Administration (OSHA) reduces proposed penalties for smaller employers: A penalty reduction of 60 percent may be applied if an employer has 25 employees or fewer; 40 percent if the employer has 26-100 employees; and 20 percent if the employer has 101-250 employees.

Employers with 10 or fewer employees are exempt from most OSHA recordkeeping requirements for recording and reporting occupational injuries and illnesses.

### **2.3. Preferred Tax Treatment for Small Businesses**

The tax treatment of business income depends on whether the business is organized as a corporation, whether the business is subject to the alternative minimum tax, and how investments are financed. The differential effects of these policies tend to favor small firms. In addition, a variety of deductions, exclusions and exemptions, credits, deferrals, and preferential tax rates benefit relatively small firms. According to estimates by the Joint Committee on Taxation and the Treasury Department, these preferential tax policies for small businesses combined to lower tax revenues by more than \$6.6 billion in fiscal year 2003.<sup>5</sup>

The tax subsidies for non-farm small businesses with the broadest reach are:<sup>6</sup>

- Expensing allowance for certain business depreciable business assets
- Reduced rates on the first \$10 million of corporate taxable income
- Cash basis accounting
- Treatment of losses from sales of small business corporation stock as ordinary income
- Amortization of business start-up costs
- Tax credit for new retirement plan expenses of small firms
- Exemption of certain small corporations from the corporate alternative minimum tax
- Uniform capitalization of inventory costs

### **2.4. Preferences in Government Contract Awards**

Every year, the federal government buys billions of dollars worth of goods and services from private firms. To ensure that *a fair share* of these contracts are awarded to small businesses, the SBA establishes annual goals for the percentage of expenditures directed to small businesses. Currently, the overall goal for prime contracts is 23 percent. For subcontracts, the overall small business goal is 40 percent. Every federal agency is required by law to have an Office of Small and Disadvantaged Business Utilization that offers small businesses information on procurement opportunities, guidance on procurement procedures, and identification of both prime and subcontracting opportunities.<sup>7</sup> In fiscal year 2003, the federal government granted over \$65 billion in prime contracts to small businesses, about 21.4 percent of all prime contracts.<sup>8</sup>

In addition, SBA helps small businesses get a share of the Natural Resources Sales. It also has several targeted programs to help for small businesses trying to acquire government contract such as the Certificate of Competency (CoC) Program, the Contracting Assistance for Women Business Owners (CAWBO), the HUBZone Empowerment Contracting Program, the Research & Development Assistance, the Federal and State Technology Partnership and the Rural Outreach program.

## **2.5. Others**

The Small Business Innovation Research Program (SBIR) is a set-aside program to help small businesses conduct research that has the potential for commercialization. Federal agencies with research and development budgets exceeding \$100 million are required to set aside 2.5 percent per year for the SBIR program. Currently, this includes 11 federal departments and agencies: the Departments of Agriculture, Commerce, Defense, Education, Energy, HHS, Homeland Security, and Transportation, and EPA, NASA, and NSF. As of FY2003, SBIR programs had awarded more than \$15 billion to small businesses.<sup>9</sup>

The Small Business Technology Transfer Program (STTR) is similar, except it requires research collaboration between the small business and a nonprofit research institution. Federal agencies with research and development budgets greater than \$1 billion are required to set aside 0.3 percent per year for the STTR program. Currently, this includes the Departments of Defense and Energy, and NIH, NASA, and NSF.

Small business programs delivered through the SBA and preferential tax and regulatory treatment raise some important policy issues. Can a sound argument be made in favor of programs targeted specifically toward small firms? The answer has important implications since according to the Congressional Research Service (2004) well over than \$14 billion are given annually to small firms. If the underlying logic for these programs—the special economic role played by small businesses—proves weak, then redirecting the resources into other applications (e.g., reducing the tax burden for everyone, cutting regulation for all firms, or reforming Social Security) may be desirable.

## **Section 3. Are Small Businesses the Fountainhead of Job Creation?**

Everyone seems to agree that small firms are a strong source of job creation. A widely-cited statistic from the Small Business Administration is that “small firms have generated 60 to 80 percent of net new jobs annually over the last decade.”<sup>10</sup> In recent years, however, this widespread belief has been seriously challenged. Critics note the difficulty of measuring job creation by small businesses: How do you define small? When should a firm’s size be measured? Is gross or net job creation a better indicator? How long should a job last before it is counted as a new job?<sup>11</sup>

In addition, critics cite evidence that small firms are not consistently better at creating jobs than large firms. In fact, it appears that the conventional wisdom rests mainly on statistical fallacies and misleading interpretations of the data. For instance, alternative methodologies to calculate net and gross job flows can produce sharply different pictures of employment growth.

The following sections review why the data does not necessarily prove that small firms are greater sources of new jobs than large firms. Moreover, it exposes some statistical errors at the origin of the conventional claim about small businesses job creating prowess.

### 3.1. Netting Out Reality

According to Davis, Haltiwanger, and Schuh (1996), the most widely cited studies of job creation behavior often present results that can be misleading.<sup>12</sup> The mistake stems from the fact that these studies emphasize net instead of gross job creation.

Consider the following illustration in Box 1.<sup>13</sup> Net employment changes are calculated at the firm level. Following common practice, firms are assigned to size categories using base-year employment and then the net firm-level employment changes are aggregated by size class. The last two lines show how the small firm share of total net job creation—the statistic so often cited by the SBA, politicians, and the press—misrepresents the actual distribution of newly-created jobs by size of firm.

In the example, 100 percent of the net job increase between year 1 and 2 is accounted for by Firm 1, which is classified as small based on its employment in year 1. But as Davis, Haltiwanger and Schuh (1996) explain, it would be wrong to conclude that small businesses created virtually all new jobs between years 1 and 2. For this example, the gross job creation statistics reveal that in fact large firms created 80 percent of the new jobs.

#### Box 1. Illustration of a confusion between net and gross job creation

	Firm 1	Firm 2	Firm 3	Small Firms	Big Firms	All Firms
Year 1 Employment	300	600	600	300	1,200	1,500
Year 2 Employment	350	400	800	350	1,200	1,550
<b>Net Change</b>	<b>50</b>	<b>-200</b>	<b>200</b>	<b>50</b>	<b>0</b>	<b>50</b>
Small Firm Share of Net Job Creation = $50/50 = 1$						
Small Firm Share of Gross Job Creation = $50/(50+200) = 0.2$						

Source: Steven Davis, John Haltiwanger, and Scott Schuh (1996). *Job Creation and Destruction*, MIT Press, p. 65.

To appreciate fully how misleading it is to calculate the small business share of net job creation, consider Table 1. The table reports the changes in employment for a selection of U.S. industries that grew quickly from 2000 to 2001. Following the calculation practices of the SBA, the net employment changes by industry are expressed as fractions of the total net change in the economy.

Between 2000 and 2001, net total non-farm employment increased by about 41,000 jobs. Over this same period, automobile dealers experienced a net increase of about 9,000 jobs. If we characterized this data in the typical way, we would say that in 2001, automobile dealers created 21 percent of new jobs. But we would also find, for example, that legal services created 62 percent of new jobs and architectural and engineering services, 90 percent. Physician offices alone created 174 percent of new jobs! Furthermore, it seems that government created 800 percent of all new jobs—perhaps we

should conclude that the government, not small businesses, is the true fountainhead of job creation.

**Table 1. Change in Net Employment for Selected Industries**

Industry	Net employment (1000s)		Change in Net Employment (1000s)	"Share" of Total Change in Net Employment
	2000	2001		
Total Nonfarm Employment	131,785	131,826	41	
Automobile dealers	1,217	1,225	9	21.0%
Scientific research and development services	515	532	17	41.7%
Offices of dentists	688	705	17	42.0%
Child day care services	696	715	19	45.9%
Legal services	1,066	1,091	26	62.4%
Community care facilities for the elderly	478	505	27	65.9%
Elementary and secondary schools	716	753	37	89.3%
Architectural and engineering services	1,238	1,275	37	89.8%
Colleges and universities	1,196	1,258	62	151.0%
Offices of physicians	1,840	1,911	71	173.9%
General medical and surgical hospitals	3,745	3,833	88	213.7%
Government	20,790	21,118	328	800.0%

Source: Current Employment Statistics, BLS

Clearly, these statistics are meaningless—shares of a total cannot exceed 100 percent—yet this is exactly how the SBA often analyzes employment data. A table published on its website, for example, shows that small businesses sometimes create 100 percent or more of new jobs.<sup>14</sup> A recent press release from the National Federation of Independent Business echoes these calculations, claiming that “in 2001, when big businesses were brought to the[ir] knees under the blows from the Sept. 11 attacks and corporate scandals, small businesses generated 100 percent of net new jobs for that year.”<sup>15</sup> These absurd examples reveal how flawed the calculation is. It defies common sense to believe that in a given year, large firms did not create a single job and all jobs were created by small firms.

More plausible is the SBA’s claim that “small firms have generated 60 to 80 percent of net new jobs annually over the last decade.” As shown above, government officials from both sides of the aisle repeat this claim. Indeed, this fact is the bedrock of the public reverence for small businesses. But it was calculated the same way as the absurd statistics above and is equally meaningless.

The root problem is a failure to distinguish between the small business share of gross job creation (20 percent in the hypothetical example above) and its “share” of net job creation. High rates of both job creation and job destruction tend to make net job growth rates small. Judging the role of small businesses in job creation based on their large share of net job growth is therefore very misleading because firms of all sizes contribute large numbers of new jobs.

### 3.2. Job Creation and Job Destruction by Employer Size

Davis, Haltiwanger, and Schuh (1996) use the Longitudinal Research Database from the Center for Economic Studies at the U.S. Bureau of the Census to investigate how job creation and destruction in the manufacturing sector from 1973 to 1988 varied by employer size. Their empirical results support the idea that studying gross job flows is more useful than studying net job creation.

To analyze employer size, they consider three different measures: 1) in base-year sizing, establishments are classified into size categories based on their size in the previous time period; 2) in mean sizing, establishments are classified into size categories based on their average size over the time period; and 3) in end sizing, establishments are classified into size categories based on their size in the current time period. (The importance of classification methodology is discussed in greater detail in the next section.)

For all three measures of size, they find that gross job creation rates increase as employer size shrinks. But gross job creation measures describe only one side of the story. Gross job destruction rates also sharply increase as employer size shrinks. In other words, small employers both create and destroy jobs at much higher rates than large employers. Consequently, net job creation exhibits no strong relationship to employer size.

Bureau of Labor Statistics economist Cordelia Okolie (2004) confirms Davis, Haltiwanger, and Schuh's manufacturing results for all private sectors.<sup>16</sup> Using data from the BLS Business Employment Dynamics program, she reports gross job gains and losses from March 2000 to June 2000.

Table 2 shows the establishment-level gross job flow statistics using the three size classification methods. Like Davis, Haltiwanger, and Schuh, she finds that by all three measures, both gross job creation and gross job destruction rates decline monotonically with establishment size.

**Table 2. Establishment-level gross job flows, by size class, March 2000 to June 2000**

Number of employees	Level			Percent		
	Net employment growth	Gross job gains	Gross job losses	Net employment growth <sup>1</sup>	Gross job gains <sup>1</sup>	Gross job losses <sup>1</sup>
Base size class total	3,443,287	10,306,902	6,863,615	3.2	9.4	6.3
1 to 9	1,636,561	3,099,983	1,463,422	10.4	19.7	9.3
10 to 49	1,194,041	3,381,265	2,187,224	4.0	11.3	7.3
50 to 99	335,867	1,199,079	863,212	2.3	8.3	6.0
100 to 249	229,885	1,229,324	999,439	1.3	6.8	5.6
250 to 499	23,300	604,134	580,834	0.2	5.7	5.4
500 or more	23,633	793,117	769,484	0.1	3.8	3.7
Mean size class total	3,443,287	10,306,902	6,863,615	3.2	9.4	6.3
1 to 9	792,029	2,616,103	1,824,074	5.2	17.3	12.1
10 to 49	1,197,043	3,374,138	2,177,095	4.0	11.2	7.2
50 to 99	484,988	1,315,253	830,265	3.3	9.1	5.7
100 to 249	401,843	1,342,194	940,351	2.2	7.4	5.2
250 to 499	240,383	710,309	469,926	2.2	6.6	4.4
500 or more	327,001	948,905	621,904	1.6	4.6	3.0
End size class total	3,443,287	10,306,902	6,863,615	3.2	9.4	6.3
1 to 9	-59,147	2,058,339	2,117,486	-0.4	13.5	13.9
10 to 49	1,209,490	3,380,205	2,170,715	4.1	11.4	7.3
50 to 99	611,560	1,386,546	774,986	4.2	9.6	5.4
100 to 249	677,693	1,506,673	828,980	3.7	8.3	4.6
250 to 499	375,912	801,911	425,999	3.5	7.4	3.9
500 or more	627,779	1,173,228	545,449	3.0	5.6	2.6

<sup>1</sup>Calculated with mean-quarter employment in the denominator.

Source: Cordelia Okolie (2004). "Why Class Size Methodology Matters in Analyses of Net and Gross Job Flows," Monthly Labor Review, p. 10.

### 3.3. The Regression Fallacy

Another potential source of bias in longitudinal studies is what economists call the regression fallacy. The "regression fallacy," or "regression-to-the-mean fallacy," is based on the principle that related measurements over time will show extreme values moving towards average values. If researchers are not careful, they can mistake this statistical phenomenon for evidence of fundamental changes. For instance, Friedman (1992) and Quah (1993) have noted this fallacy in the "convergence hypothesis" of economic growth literature: because they ignore regression to the mean, some economists have incorrectly concluded that poorer countries grow faster than richer countries.<sup>17</sup>

Friedman (1992) describes the regression fallacy as "the most common fallacy in the statistical analysis of economic data" and explains how it might apply to studies of small businesses.<sup>18</sup> Categorizing firms by size in an initial year, then tracing their subsequent growth will tend to show that smaller firms contribute more to job growth than larger firms—a result that many use to establish the economic importance of small firms but that is also consistent with regression to the mean.

Leonard (1986) points out that "[i]t is just as meaningful and valid to analyze the dynamics of size change classifying by end of period rather than beginning of period size."<sup>19</sup> Because of regression to the mean, such a classification results in the opposite conclusion—larger firms have stronger growth than smaller firms. Failing to account for regression to the mean will thus produce misleading results; using base-year size to

conclude that small firms have greater job growth than large firms is just as incorrect as using end-year size to conclude that larger firms have greater job growth.

In the job growth literature, the regression fallacy arises because firms often experience transitory changes in employment and because firms are reclassified by size each year. A firm classified as large in one year is likely to have recently experienced a transitory increase in employment that will be reversed soon after. A small firm is likely to be in the opposite situation: a recent transitory setback, soon to be followed by expansion. Year-to-year calculations of job growth rates thus systematically create a false impression that small firms are growing faster than large firms.

Using different size measures demonstrates the magnitude of this regression-to-the-mean bias. From Table 2, it is apparent that the method used to classify establishments into classes has substantial effects on the measurement of net employment growth. The base-size statistics typically used by analysts provide a very different picture of employment growth from the end-size statistics, particularly for the smaller establishments. For example, for establishments with 1 to 9 employees, the base-size statistics shows a net gain of 1,636,561 jobs, whereas the end-size statistics indicate a net loss of 59,147 jobs.

Similarly, the base-size and end-size statistics for the largest establishments also differ. The base-size statistics show that establishments with more than 500 employees had a net gain of 23,633 jobs whereas the end size statistics show a net gain of 627,779 jobs. Davis, Haltiwanger, and Schuh present similar trends in their data for the manufacturing sector from 1973 to 1988.<sup>20</sup>

These findings illustrate Leonard (1986)'s point: because of regression-to-the-mean bias, the choice of size classification methodology powerfully influences job growth statistics. By focusing on base-year sizing, small business advocates rest their claims about impressive job creation in part on a statistical fallacy.

It seems that the best approach to address the regression fallacy concern is to use the average employment level over the entire period studied as a basis for classifying firms into size categories. Studies using this approach generally find that it decreases the gross job gains and increases the gross job losses attributable to small firms. They also demonstrate that large firms tend to produce more jobs (or lose fewer jobs) than small firms.

To conclude, drawing on studies by Davis, Haltiwanger, and Schuh (1993, 1996) in the manufacturing sector and Okelie (2004) in all private sectors, along with some new data, we show that while gross job creation rates are substantially higher for smaller firms, so are gross destruction rates. We also show that larger employers offer greater job security. For both new jobs and the typical existing job, job durability increases with employer size.

The empirical findings discredit the conventional wisdom about the job creation prowess of small business. Because of the regression fallacy and confusion between net and gross job creation, the general perception of small business job creation is distorted. As illustrated by the list of quotations in Box 1, this distorted view is often used as an argument in favor of preferential tax, subsidy, or regulatory treatment of small businesses such as the ones listed in Section 2. In addition to the questionable factual basis, this type of argument raises other problems.

For instance, Davis, Haltiwanger, and Schuh (1996) point out that the mere creation of jobs is not an appropriate economic policy objective. You can add jobs to an economy yet create no economic value. For example, imagine hiring someone to dig a hole every morning and someone to fill it in every afternoon: you create two jobs, but nothing of economic value. A striking real-life example is the former Soviet Union, where unemployment was low because the government gave a job to everyone, and yet the economy was stagnant.

Economic policy is appropriately directed towards economic growth whether it takes the form of additional jobs or increase of productivity in existing jobs is all that matters. And unlike the common belief there is no reason to base our policies on the idea that new jobs are creating more economic value than existing jobs or that small businesses are more deserving of government favor than big companies. In fact, no particular class of employers deserves government handouts. And to the extent that a preferential treatment—such as lower tax rate—has been identified as promoting economic health of a given industry or a particular class of employers, then it seems reasonable to assume that it should be extended to all classes.

#### **Section 4. Economic and Policy Implications**

In the previous section, we showed that the claim that small businesses are the fountainhead of job creation does not hold water. This is not to say, however, that small businesses are worthless. On the contrary, small firms are a large part of the economy, employing roughly 50 percent of private sector employees.<sup>21</sup> They are also an important source of innovation. Small firms are often more flexible than large, established firms and better able to take risks, experiment in new market niches, pursue new technologies and be more entrepreneurial. They are responsible for the most influential innovations in our economic history—think of newcomer Apple leading the way in personal computers, or startup firm Amazon.com pioneering online retailing—while large, established firms are better at incremental innovations that improve on existing technology.<sup>22</sup> The question, then, is whether these features of small businesses justify preferential government policies.

Some argue that the government must intervene to correct fundamental inefficiencies that prevent small businesses from thriving. For instance, SBA loan guarantees for small businesses are justified as a way to correct financial market inefficiencies that make it difficult for small firms to access capital. However, a significant literature demonstrates that, contrary to the widely-held belief that small businesses have difficulty accessing capital, they seem to be doing just fine.<sup>23</sup> Indeed, it is interesting to observe that the National Federation of Independent Business (NFIB), the largest small business advocacy group, does not lobby Congress to promote the SBA loan guarantee programs. In fact, facilitating access to capital markets is not even part of their agenda.<sup>24</sup>

To be sure making capital more available is an important goal. However, SBA loan guarantees are not the best way to achieve that goal. The SBA loan guarantee program is ineffective and unable to meet its prescribed goals, but it effectively crowds out unassisted businesses.<sup>25</sup> A more productive policy would be to free capital from taxes. The United States imposes a high tax rate on capital, which reduces investment,

provides incentives for firms to move profits abroad, and encourages costly tax avoidance schemes. Economic literature for instance concludes that an optimal tax system in most cases should not include a tax on capital.<sup>26</sup> Reducing the capital tax would benefit not only small firms, but all firms.

Another argument used to justify small businesses preferential treatments is this idea that by promoting small businesses we promote entrepreneurs. However, even though small is often a necessary condition to entrepreneurship it certainly is not a sufficient. In other words, not all small firms deserve special treatment, and it is impossible to identify the subset that do. Claims about small business entrepreneurship are statements about the *average* behavior of a class of firms. As we know that only a few firms account for most small business innovation and/or job creation.

Birch and Medoff (1994) explain that most small-firm job creation occurs within a relatively few firms, firms they call “Gazelles.”<sup>27</sup> Gazelles are high-growth entrepreneurial companies that started small and quickly grew larger. This subset of small firms, not small firms in general, is the powerful job creator and innovation producer that should be targeted by government policies. But no one can identify a Gazelle before it takes off. The label can be applied only by looking at past growth, long after the firm has created new jobs. Because no one knows where new jobs or the innovation will come from, it is impossible to accurately target the job-creating or entrepreneurial firms.

In the end, absent any real inefficiency in capital access for small businesses or ways to identify entrepreneurial firms from others, it is difficult to justify preferential treatments such as the loan guarantees provided by the SBA, tax cuts or subsidies.

The only argument for preferential treatment that seems to have a solid foundation is the argument that small firms suffer disproportionately large regulatory burdens. Because regulatory compliance tends to require a fixed amount of investment, smaller firms face a higher per-employee cost than larger firms. Economist W. Mark Crain calculates that each year the cost of federal regulation for the average firm is about \$5,600 per employee.<sup>28</sup> And although the number of new regulations affecting small businesses is down 25 percent in the past five years, the federal regulatory burden for firms with fewer than 20 employees is roughly \$7,600.<sup>29</sup> Environmental regulations account for the bulk of the difference.<sup>30</sup> Similarly, Crain and Johnson (2001) focus on the compliance costs for federal workplace regulations and find that for firms of less than 100 employees, the cost per employee is about \$2,500, which is 68 percent higher than the per-employee cost for firms of 500 employees or more.<sup>31</sup>

Reducing these burdensome regulations for small businesses would unquestionably promote economic growth. But surely large firms would also benefit from reduced regulation. Why target only small businesses? As a matter of fact, it is important to remember that targeted policies have often proven to be bad policy. Here are three reasons.

(1) Special treatment creates special interest groups that tend to undermine the application of economic efficiency criteria. Preferential government policies have inspired small businesses to join together to protect their benefits and lobby for more. Thus joined together, they have lobbied for policies that benefit all small businesses equally, which draws resources to those who do not deserve it.<sup>32</sup> Furthermore, the powerful small business lobby has won some targeted policies that are consistent with promoting general economic growth, such as cutting marginal tax rates and red tape, but

these worthwhile policies have been accompanied by many inefficient programs. The great majority of SBA activities are wasteful and unnecessary.<sup>33</sup>

(2) Special treatments are bound to be inefficient. For one thing, they never go away, even if conditions change to make them no longer necessary. Government officials are reluctant to acknowledge policy failure and the targeted group has a strong incentive to want the policies to be made permanent.<sup>34</sup>

(3) The practical implementation of special treatment for small businesses has perverse side effects. Economist Douglas Holtz-Eakin (1995) explains that if the tax code favors small firms over large ones, it will make it more profitable to stay small rather than grow.<sup>35</sup> This perverse incentive will lead to a misallocation of resources away from their most productive uses and will interfere with the natural growth and evolution of firms. Preferential regulatory treatment will have the same effect.

For the typical small business benefit, firms will lose the targeted benefit when their employment, assets, or receipts surpass a certain limit specified by law. This hidden cost has been described as the “notch problem,” and it is an unavoidable byproduct of the design of many programs targeted at small firms.<sup>36</sup> Such a design creates a disincentive to grow beyond that limit. For instance, if a firm doesn’t hire more than 49 employees, it avoids mandatory family and medical leave; or if an employer does not hire more than 10 employees, he is exempt from most OSHA requirements for recording and reporting occupational injuries and illnesses.

Of course none of these reasons are intended to minimize the economic benefits that flow from creating an economic environment that supports the creation and growth of small businesses. In fact, it is precisely because a vibrant business sector is important that government subsidies and other preferential policies should be abolished. Market economies generate faster growth because resources are allocated on the basis of profit-maximization rather than political considerations. In the absence of government intervention, resources are quickly shifted from inefficient uses to more productive uses. Special programs designed to help small businesses are likely to hinder this process and will distract entrepreneurs and investors from focusing on serving the needs of consumers.

Instead of preferential policies, the government can best help small business – and other segments of the economy – by creating an environment conducive to productive behavior. Policymakers should establish a tax and policy environment that encourages small, mid-size firms with strong growth potential to evolve into successful large enterprises. And they should establish an environment where firms of all size could thrive. This means low tax rates, low levels of regulation, and a stable legal structure that protects property rights.

## **Conclusion**

There is no question that small businesses make an important contribution to the performance and growth of the US economy. Available evidence suggests that depending on how small firms are defined, they account for a majority of private sector jobs and private sector output, generate technological innovations and more.

But none of these contributions get as much recognition as the claim that small businesses are the fountainhead of job creation. The conventional wisdom about the job creating prowess of small firms has lead a widespread support inside and outside of

Congress for government policies to assist small business. Tax breaks, regulatory exemptions and direct spending are concrete manifestations of the support received by small firms. By some account, the combined cost of current federal small business preferential treatments probably amounts to \$14 billion.

As it turns out, the conventional claim about small businesses' job creating rests mainly on statistical fallacies and misunderstanding of the data. For instance, using different methodologies to sort companies by size and to measure the net job growth rate can provide very different picture of who's the engine of job creation. Also, the most widely cited studies of job creation behavior often present results that can be misleading. The mistake stems from the fact that these studies emphasize net instead of gross job creation.

It appears then that the claim that small businesses are the fountainhead of job creation does not hold water. It means that the rationale for government preferential treatments is largely undermined. In addition, the numerous qualities that we recognize to small businesses do not justify preferential treatment for small businesses. For many reasons, targeted policies are simply bad policy and could hinder economic growth.

Talking about large corporations, Congressman Jim Cooper explains that "Federal spending should be based on national priorities and needs—not the narrow interests of those with access to lobbyists in Washington." He adds, "The proliferation of corporate entitlements is bad for America. Subsidies that serve no public interest are a wasteful and inefficient use of taxpayer money that only add to the federal deficit and increase burdens on taxpayers." But what is true for large corporations is also true for small businesses.

Finally, the mere creation of jobs is not an appropriate economic policy. Also, absent of other real inefficiencies that would really handicap small businesses there is no case for preferential treatments. Economic policy should be directed towards economic growth. Policy recommendations such as reforming the personal and corporate income tax or cutting red tape would promote economic growth regardless of the size of the firms. They would help small businesses without creating any of the distortions described above.

Instead of preferential policies, policymakers should establish a tax and policy environment that encourages small, mid-size firms with strong growth potential to evolve into successful large enterprises. And they should establish an environment where firms of all size could thrive. This means low tax rates, low levels of regulation, and a stable legal structure that protects property rights.

---

<sup>1</sup> Edwards, Chris (2000). "Entrepreneurs Creating the New Economy," Joint Economic Committee Staff Report.

<sup>2</sup> Quote from Virginia Postrel's article, "Populist Industrial Policy: Ideas and their Health-care Consequences," Reason online, January 1994.

<sup>3</sup> Budget of the US Government, *Appendix FY 2006*, (US Government Printing Office, Washington DC), p. 1067-1076.

<sup>4</sup> Leslie Eaton and Ron Nixon (2005), "Wheels of Government Move Slowly for Owners Who Await Word on Loans," The New York Times, October 7.

- 
- <sup>5</sup> Gary Guenther (2004), "Small Business Tax Benefits: Overview and Economic Analysis," Congressional Research Service, CRS RL32254, March 3, p. 3.
- <sup>6</sup> Guenther (2004). Excluded from this list are subsidies targeted at small firms in specific industries such as life insurance, banking, and energy production or distribution.
- <sup>7</sup> U.S. Small Business Administration, Government Contracting, "What We Do," <http://www.sba.gov/GC/indexwhatwedo.html>
- <sup>8</sup> *The Small Business Economy: A Report to the President*, Office of Advocacy, Small Business Administration, 2004, pp. 35-36. Officials at the SBA's Office of Government Contracting calculate the small business share of federal prime contracts to be 23.6 percent, because they exclude some contracts that they believe small businesses do not have a reasonable opportunity to compete for.
- <sup>9</sup> *The Small Business Economy: A Report to the President*, Office of Advocacy, Small Business Administration, 2004, p. 46.
- <sup>10</sup> U.S Small Business Administration (2004), Office of Advocacy, Small Business FAQ, <http://app1.sba.gov/faqs/faqindex.cfm?areaID=24>
- <sup>11</sup> Guenther (2004).
- <sup>12</sup> The most widely cited studies of the small business role in creation jobs are Small Business Administration (various years) and Birch (1979, 1987).
- <sup>13</sup> This example is reproduced from Davis, Steven J., John Haltiwanger, and Scott Schuh (1996), *Job Creation and Destruction*, Chapter 7 (Cambridge Massachusetts: The MIT Press), pp 65.
- <sup>14</sup> Small Business Administration, "Employer Firm Births and Deaths by Employment Size of Firm, 1989 to 2002," [http://www.sba.gov/advo/research/dyn\\_b\\_d8902.pdf](http://www.sba.gov/advo/research/dyn_b_d8902.pdf)
- <sup>15</sup> National Federation of Independent Business, "National Small Business Week Certain to be Big on Blather," Press Release, April 25, 2005, [http://www.nfib.com/object/IO\\_21822.html](http://www.nfib.com/object/IO_21822.html)
- <sup>17</sup> Quah, Danny (1993). "Galton's Fallacy and Tests of the Convergence Hypothesis," *Scandinavian Journal of Economics* 95(4): 427-443 and Friedman, Milton (1992). "Do Old Fallacies Ever Die?," *Journal of Economic Literature* 30: 2129-2132.
- <sup>18</sup> Friedman, Milton (1992). "Do Old Fallacies Ever Die?," *Journal of Economic Literature* 30: 2129-2132.
- <sup>19</sup> Leonard, Jonathan S. (1986). "On the Size Distribution of Employment and Establishments," NBER Working Paper No. 1951.
- <sup>20</sup> Davis, Steven J., John Haltiwanger, and Scott Schuh (1996), *Job Creation and Destruction*, Chapter 7 (Cambridge Massachusetts: The MIT Press), pp. 66 to 69.
- <sup>21</sup> U.S Small Business Administration (2004), Office of Advocacy, Small Business FAQ, <http://app1.sba.gov/faqs/faqindex.cfm?areaID=24>
- <sup>22</sup> Edwards (2000), p. 19.
- <sup>23</sup> Board of Governors of the Federal Reserve System (2002), "Report to the Congress on the Availability of Credit to Small Businesses," September, p. 13.
- <sup>24</sup> National Federation for Independent Business, "What We Fight For," [www.nfib.com/page/agendasummary.html](http://www.nfib.com/page/agendasummary.html)
- <sup>25</sup> See forthcoming paper by Veronique de Rugy, AEI working Paper Series, December 2005.
- <sup>26</sup> See Judd Kenneth (1999), "Optimal Taxation and Spending in General Competitive Growth Models," *Journal of Public Economics* 71: 1-26, and Eric Engen and Kevin A Hassett (2002), "Does the US Corporate Tax Have a Future?" In *Tax Notes's 30<sup>th</sup> Anniversary Edition 1972-2002*, p 16.
- <sup>27</sup> David Birch and James Medoff (1994), "Gazelles," in *Labor Markets, Employment Policy, and Job Creation*, Lewis C. Solomon and Alec R. Levenson, Eds. (Boulder, CO: Westview Press), p. 162.
- <sup>28</sup> Crain, W. Mark and Joseph Johnson (2001). "Compliance Costs of Federal Workplace Regulations: Survey Results for U.S. Manufacturers," Regulatory Studies Program, Mercatus Center, George Mason University.
- <sup>29</sup> Crews, Clyde Wayne, Jr. (2005). "Ten Thousand Commandments: An Annual Snapshot of the Federal Regulatory State," Competitive Enterprise Institute.
- <sup>30</sup> Crain, W. Mark (2005). "The Impact of Regulatory Costs on Small Firms," Office of Advocacy, Small Business Administration, Research Summary No. 264, and Crain, W. Mark and Joseph Johnson (2001). "Compliance Costs of Federal Workplace Regulations: Survey Results for U.S. Manufacturers," Regulatory Studies Program, Mercatus Center, George Mason University.

---

<sup>31</sup> Crain, W. Mark and Joseph Johnson (2001). "Compliance Costs of Federal Workplace Regulations: Survey Results for U.S. Manufacturers," Regulatory Studies Program, Mercatus Center, George Mason University.

<sup>32</sup> See Davis, Steven J., John Haltiwanger, and Scott Schuh (1996), *Job Creation and Destruction*, Chapter 7 (Cambridge Massachusetts: The MIT Press), pp.154 and CRS Report for congress (2004), "Small Business Tax Benefits: Overview and Economic Analysis," Congressional Research Service, RL32254, p. 22.

<sup>33</sup> De Ruy, Veronique (forthcoming).

<sup>34</sup> See Davis, Steven J., John Haltiwanger, and Scott Schuh (1996), *Job Creation and Destruction*, Chapter 7 (Cambridge Massachusetts: The MIT Press), pp.154

<sup>35</sup> Douglas Holtz-Eakin (1995), "Should Small Businesses be Tax Favored?," *National Tax Journal* 48(3): 390.

<sup>36</sup> Gary Guenther (2004), "Small Business Tax Benefits: Overview and Economic Analysis," Congressional Research Service, CRS RL32254, March 3, p. 25.