RE-EXAMINING FIRM SIZE AND EXPORTING:
AN EMPIRICAL ANALYSIS OF SOUTH CAROLINA FIRMS

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ABSTRACT

Mittlelstaedt, Harben, and Ward (2003) and Wolff and Pett (2000) offer contradictory evidence on the impact of firm size (by employment) and the propensity to export. Using a data set very similar to that of Mittelstaedt et al., we re-examine the issue. Although we find that firm size has a significant impact on export propensity, we fail to find a threshold at twenty employees, as Mittelsteadt, et al., did. Our findings are more supportive of Wolff and Pett, who argue very small firms are capable of exporting. This paper concludes by considering the implications for researchers and policymakers.

INTRODUCTION

Exporting by small firms is a significant economic activity. The U.S. Bureau of Census indicates that over 239,000 firms exported goods in 2005. Small companies account for 97 percent of all U.S. exporters, a percentage that has risen slightly since 1995. Small exporters exported goods valued at $228 billion, which represented 29.1 percent of total U.S. goods exported (U.S. Census Bureau, 2007).

McDougall and Oviatt (1999) are credited with identifying a link between internationalization and entrepreneurship. However, they expressed caution that the "born global" phenomenon was universally appealing to all firms, regardless of size. Their caution was guided by the fact that they noted that there was largely no empirical support for the recommendation that firms internationalize.

Given figures such as these, it is unsurprising that the academic literature explores the relationship between firm size (by number of employees) and exporting (see Wolff and Pett, 2000, and Mittelstaedt, Harben, and Ward, 2003). Although there any many ways for firms to internationalize, like much of the literature, we focus on exporting. The findings are inconsistent in this area. Some studies identified a positive relationship between firm size and export success (e.g., Lall and Kumar, 1981; Kaynak and Kothari, 1984). Other studies found no relationship (e.g., Czinkota and Johnson, 1983; and Moini, 1995). Finally, another group of studies found an inverse relationship (e.g., Cooper and Klienschmidt, 1985).

Mittelstaedt, Harben, and Ward (2003) argued that firms with fewer than 20 employees (hereafter, micro firms) fall below a critical threshold and will face so many major obstacles to exporting that they should not attempt to export. However, their conclusions contrasted with Wolff and Pett (2000), who argued that micro firms are capable of exporting, and with McDougall, Shane, and Oviatt (1994) and Oviatt and McDougall (1995) and others (e.g., Autio, Sapienza, and Almeida 2000; Rialp-Criado, Urbano, and Vaillant 2003), who argued that

some new ventures are created with an intent to sell internationally.

The purpose of this paper is to revisit the relationship between firm size and export propensity, focusing on micro firms, using Mittlelstaedt et al (2003) and Wolff and Pett (2000) as our antithetical backgrounds, and using a data set very similar to that of Mittelstaedt et al. We argue that Mittelstaedt et al. did not prove that micro firms are *incapable* of exporting, but instead demonstrate that micro firms are *less likely* to export. Their 20-employee threshold is not an absolute value, but is the result of the specific method Mittelstaedt et al. used to analyze their data. Although we find that firm size has a significant impact on export propensity, we fail to find a threshold at twenty employees. Instead, we find that the evidence supports the existence of a "threshold" at any arbitrarily chosen partition value; that is, the evidence fails to support the existence of a threshold at any particular number of employees. Our findings are supportive of the Wolff and Pett argument, which said very small firms are capable of exporting.

This is not a trivial result. Where there are inconsistent results in the literature— inconsistencies in what we know—there is the increased likelihood of poor public policy and poor business strategy decisions. The two practical end products of academic research in business are advice for public policy makers and advice to business strategy makers. Academic research would fail in this regard if, for example, micro business owners or business assistance professionals fail to pursue exporting until a firm has grown to a certain threshold size because of a mistaken academic result. Academic research would fail in this regard if, for another example, policymakers fail to pursue the idea that economic development can occur through exporting by micro firms because of a mistaken academic result. We do not claim to have conclusively resolved the empirical inconsistencies in the relationship between firm size and exporting. However, we do provide another piece of evidence that moves us in that direction.

In the next section, we provide a brief review of the literature on exporting by small firms with a particular emphasis on size as a determinant of exporting ability. Then, we describe our research design and discuss our results using a sample of firms obtained from a database of over three thousand firms maintained by the South Carolina Department of Commerce. In the final section, we discuss the implications of our findings and make suggestions for both future research and public policy officials.

LITERATURE REVIEW

Small firms and micro firms have emerged as one of the most widely researched topics of the last 30 years (Wright, 1993; Autio, Sapienza, and Almeida, 2000; Baird, Lyles, and Orris, 1994; Aitken, Hanson, and Harrison, 1997; and Oviatt and McDougall, 1995). This section will emphasize particular research relevant to firm size as a determinant of exporting. While other forms of market entry are available to small firms, exporting remains a significant means of foreign market entry (Pett and Wolff, 2003; Hollenstein, 2003) and is the focus of this paper.

Several studies have measured performance outcomes in terms of export performance or export intensity, with mixed results. Some studies found a positive relationship between firm size and export success (e.g., Lall and Kumar, 1981; Kaynak and Kothari, 1984). Other studies found no relationship (e.g., Czinkota and Johnson, 1983; and Moini, 1995). A final group of studies found an inverse relationship (e.g., Cooper and Klienschmidt, 1985).

A study from the first group, Baird, Lyles, and Orris (1994), found that international firms are larger and tend to be industrial firms rather than retail or service firms. Dhanaraj and Beamish (2003) confirmed this finding using a resource-base theory of the firm (Penrose, 1959; Barney, 1991) in a sample of Canadian firms.

Wolff and Pett (2000), however, demonstrated that small firms are capable of exporting. They concluded that small firms use a different decision process to export than do large firms. They argued that the

resource-based view of the firm may serve as a useful explanation for the success of these small exporters. Very small firms in their study appeared to capitalize on unique resources that were independent of economies of scale or other cost efficiencies.

The results of Mittelstaedt et al. (2003) and Mittelstaedt and Ward (2005) are in sharp contrast to those of Wolff and Pett (2000). Using a sample of manufacturing firms in South Carolina, they found that micro firms are far less likely to engage in exporting than small firms with between 20 and 500 employees (Mittelstaedt et al, 2003). Significantly, they found that firms behave as if 20 employees is a minimum threshold, below which firms do not export. Mittelstaedt et al. concluded that micro firms simply do not have the resources to engage in exporting. They concluded that "firm size serves as a necessary as well as a sufficient condition for exporting success." (Mittelstaedt, Harben, and Ward, 2003) They reasoned that "if minimum firm size is a necessary condition for export success, then exporting firms will be larger than non-exporting firms" in the same industry (Mittelstaedt, Harben, and Ward, 2003). Our interpretation of their work is that they viewed exporting success dichotomously rather than intensively, wherein if a firm self-reported any amount of exports, then that firm is coded as a success. To test their hypothesis, they calculated the exporting conditional probabilities of firm size distribution within a given industry. They compare the calculated size distribution with the actual size distribution of exporting firms to determine whether certain sizes of firms are "underrepresented" (Mittelstaedt, Harben, and Ward, 2003). They found that small firms are less likely to export than are large firms. Thus, they write, "In the United States, how small is too small to export? The answer appears to be 20 employees," (2003), and "The bad news for most firms with fewer than 20 employees is that they appear to be too small to acquire the knowledge or experience necessary to engage in the exporting process." (2003).

A more recent study by Mittelstaedt and Ward (2005) also found a significant positive relationship between firm size and the propensity to export. However, in this study, the authors noted that their model captured not only a difference in export propensity between small and large firms, but also between micro firms and small firms.

Researchers exploring the relationship between firm size and export propensity have continued to produce contradictory findings. For example, Thomas, and Grosse (2005) also suggested that firm size matters. Thomas and Grosse (2005), used size as an indicator of resource availability. Their initial hypothesis is consistent with Mittelstaedt et al (2003). They argued that "firms that possess higher levels of resources are more likely to engage in exporting to exploit them" (Thomas and Grosse, 2005). However, their results did not show a positive relationship between firm size and export propensity. They identified a positive relationship between firm size and *importing*. They point out that their study was limited to the study of the largest Mexican firms. Thus, the authors noted the range restriction of their measure for firm size as a limitation, but noted that range restrictions are a significant problem with much of the research on internationalization, exporting, and firm size.

Finally, a recent study by Hollenstein (2005) argued that size may be a determinant of exporting, but only up to a certain size threshold (firms with up to 200 employees). Hollenstein's analysis of a sample of Swiss firms was divided into three sub-samples to capture subsets based upon three primary size categories: small, medium, and large firms. Firm size was *not* found to exert an independent influence on internationalization in the sub-sample of large firms (greater than 200 employees).

The contradiction between the conclusions of Wolff and Pett (2003) and Thomas and Grosse (2005), and the conclusions by Mittelstadt et al. (2003), Hollenstein (2005), and others, is more appearance than substance. We argue that Mittelstaedt et al. did not conclusively demonstrate that micro firms are *incapable* of exporting. Rather, they demonstrated that micro firms are *less likely* to export than larger firms. We argue

that the 20-employee threshold is not an absolute value, but is the result of the specific method Mittelstaedt et al. used to analyze their data.

METHODOLOGY AND RESULTS

We examined data from the 2000-2001 South Carolina Industrial Directory to determine whether firm size serves as a necessary and sufficient condition for export success among small manufacturing firms. We used data drawn to replicate the Mittlelstaedt et al (2003) study.[1] More current versions of the South Carolina Industrial Directory are available, but we used the 2000-2001 edition to remain consistent with the prior study. We believe this is a methodological strength for us, as it allows us to test their conclusion that 20 employees are a necessary condition for exporting, using what is essentially their own data set.

We examined the data to determine whether South Carolina firms with fewer than 20 employees export. If 20 employees is a necessary condition for exporting, then one should be unable to observe firms with fewer than 20 employees actually exporting.

After sorting the dataset by SIC code, we conducted chi-squared tests after partitioning the sample using arbitrarily chosen firm sizes. If, using a chi-squared test, we find evidence that an "exporting threshold" exists at an arbitrarily chosen cut-off number of employees, then the similarly derived evidence for a threshold at 20 employees will fail to persuade.

Mittelstaedt et al. examined 2,848 firms from 49 three-digit SIC industrial sectors. The current study from the same data set uses 3,771 firms. The specific 49 sectors were not listed in the first paper, so our data could not be restricted to these sectors.

We wish to emphasize what constitutes an "exporting firm" for the purposes of this paper, given the dataset we used. The data recorded self-reported answers measuring whether a firm exported during the year, on a

"yes" or "no" basis. Thus, if a firm reports exporting, we coded that firm as an export success. The data did not allow us to measure sales volume or profit volume of exports, nor did it allow us to measure export intensity or export intentions.

It is helpful to plot the data, as shown in Figure 1, to obtain a general understanding of the data. Figure 1 shows the percentage of firms that export by the number of employees in the firm (from 0 – 500 employees). Figure 2 is identical to Figure 1, except it emphasizes very small firms (0 – 50 employees). As most research suggests, Figure 1 shows that larger firms are more likely to export than smaller firms. The figure shows that 15 percent of firms with one employee export and this percentage gradually increases with no discontinuities until 37 percent of firms with 500 employees export. Figure 1 and Figure 2 plot the number of employees against the cumulative percentages of firms that export. For example, 37 percent of all firms with up to 500 employees export. The cumulative percentage is used to reduce random fluctuations in the exporting percentage of firms with different number of employees. The random fluctuations make interpreting the graph very difficult.

Visual observation of the raw data does not appear to support the Mittelstaedt et al. conclusion that micro firms with fewer than 20 employees cannot export. Although larger firms are more likely to export, micro firms in South Carolina do export over the observation period, and the data show no unusual patterns around the 20-employee mark. Figure 2 emphasizes very small firms and shows that 44 percent of firms with zero employees export. A firm with zero employees would be a self-employed person with no additional employees. Remember, a self-employed person is not an employee of the firm. This export percentage is higher than the average export percentage of any other level of employment. This observation is consistent with anecdotal evidence that micro firms with a web site or eBay presence will export. The results are qualitatively

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[1] The data sets used by the other researchers (e.g., Hollenstein, 2005 and Thomas and Grosse, 2005) were not available to the researchers.
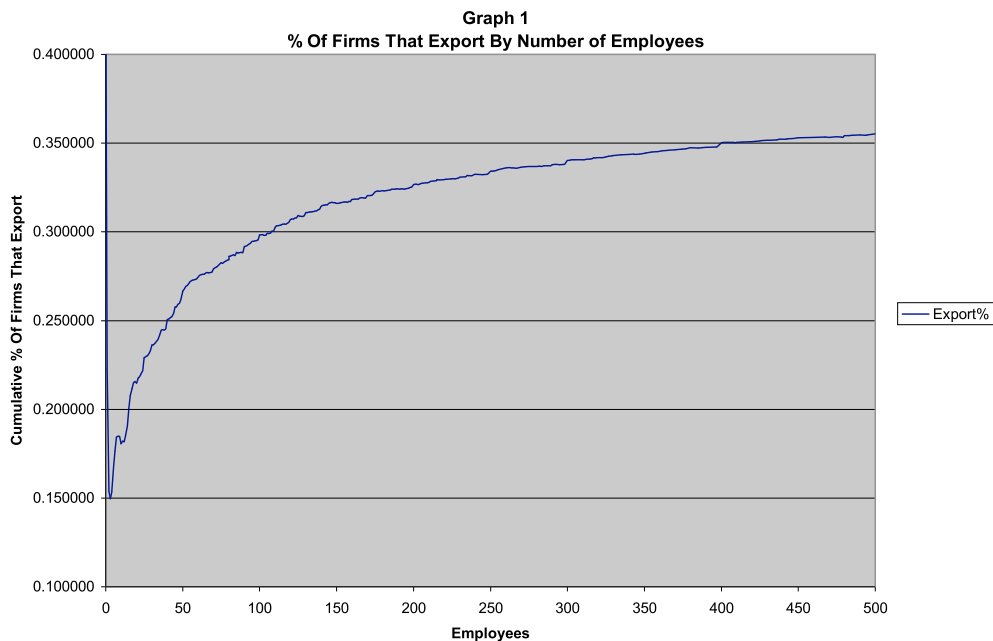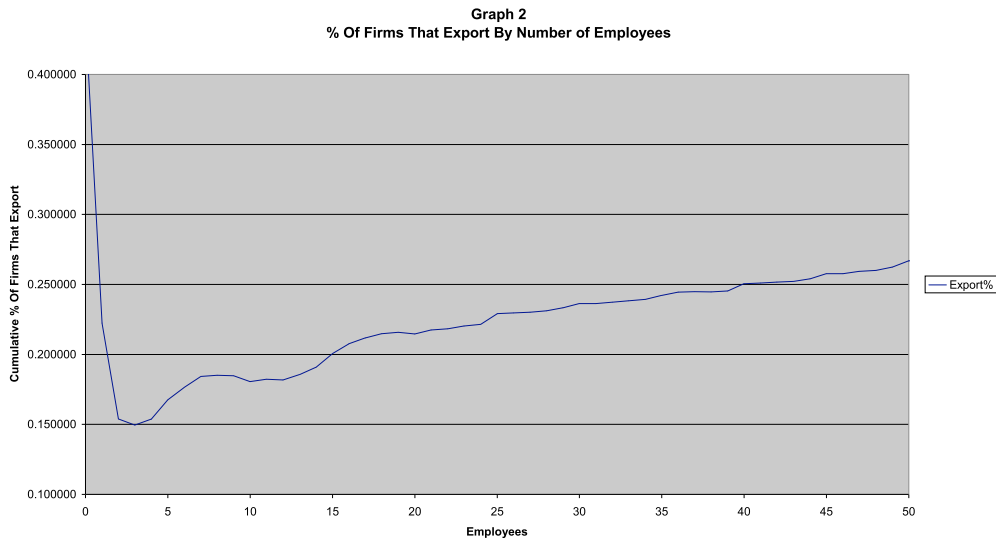
Figure 1.

Graph 1
% Of Firms That Export By Number of Employees

Figure 2.

Graph 2
% Of Firms That Export By Number of Employees

unchanged if we censor our sample to exclude zero-employee firms. Although the percentage of exporting companies falls after censoring the data, it never dips below 15 percent of firms. Whether we include or exclude zero-employee firms in our sample, the evidence indicates that a sizeable portion of micro firms are exporting.

Mittelstaedt et al. sorted the South Carolina firms by three digit SIC codes and then partitioned each selection of firms into four groups: micro (fewer than 20 employees), small (20-99 employees), medium (100 – 499 employees), and large (500+ employees). They counted firms that export and firms that do not export by SIC classification within each size group. They performed Chi-square tests on each SIC classification. They found 31 of the 49 SIC classifications studied have statistically significant differences across firm sizes.

Mittelstaedt et al. gave a very helpful example on pages 71-72 of their paper, in which they demonstrated their analytical technique in detail for one business sector, rather than simply reported 49 chi-squared test results. We followed their lead, and also analyzed one sector in detail, as an illustrative example of the general procedure. The example concerns SIC code 355 (Special Industry Machinery and Equipment) which has a total of 120 firms, which they partitioned by number of employees. Please see the left-hand side of Table 1, wherein we offer a similar example, with the data partitioned as Mittelstaedt et al. did.

The left-hand side of Table 1 shows the numbers of firms that export and do not export in each partition, and also shows the calculation of the chi-square test. We calculated the expected values by assuming that the average percentage of firms exporting within the sample will be the same as the average percentage of firms that export within each partition. This is what one would expect if there were no relationship between firm size and export propensity. For example, 63.33 percent (76 firms out of 120 firms) of the firms in this SIC classification choose to export. Therefore, 63.33 percent of firms will export in each partition. Of the 70

micro firms, we expect that 44.33 of these firms will export.

This analysis creates an allocation exercise; therefore, the actual value minus the expected value is a zero sum calculation. That is, the actual number of firms that export (and do not export), minus the expected number of firms that export (and do not export), sum to zero across the columns and down the rows. Therefore, when firms in some categories export more than average (i.e., large firms), then it follows that firms in some other category will have to export less than average (i.e., small firms). We then calculated the sum of squared errors. The test statistic was formed by the total sum of squared errors, and takes a chi-squared distribution. Figure 1 and Figure 2 show that small firms export less, therefore any partition of firms according to SIC code will show that smaller firms export less than larger firms. This is what Table 1 shows: statistically, significantly fewer firms than expected export within the "under 20 employees" partition. Our conclusion is that size matters, and we reject the hypothesis that there is no relationship between firm size and export propensity.

Rather than demonstrating that firms with fewer than 20 employees are too small to export, this example (and the original examples in Mittelstaedt et al.) shows that micro firms *do* export; albeit a smaller percentage of these firms export than would be expected based upon the average of all firms in SIC code 355. This argument is consistent with the evidence obtained from Figure 1 and Figure 2. Contrary to the Mittelstaedt et al. assertion (2003), firm size is not a *necessary* condition for exporting success, whether firm size is fewer than 20 employees or more than 20 employees.

The Mittelstaedt et al. finding that firms with fewer than 20 employees are too small to export is a result of their particular partition of the dataset at 20 employees. To demonstrate this, we partitioned the data using arbitrarily chosen threshold figures, to determine whether the data also supports any arbitrarily chosen partition as an export threshold. We partitioned the data from SIC code 355 into firms with fewer than 100

Table 1. Example of Chi-Squared Tests of Partitioning the Sample at Different Values

SIC Code 355, Special Industry Machinery and Equipment

| | *Initial Partition Into Four Sizes Of Firms* | | | | | *An Arbitrary Partition Into Four Sizes Of Firms* | | | | |

Actual Values

	<20	20-99	100-499	500+	*Total*	<100	100-200	200-500	500+	*Total*
Export	39	25	10	2	*76*	64	8	2	2	*76*
Don't Export	31	13	0	0	*44*	44	0	0	0	*44*
Total	70	38	10	2	*120*	108	8	2	2	*120*

Expected Values

					Total					*Total*
Export	44.33	24.07	6.33	1.27	*76*	68.40	5.07	1.27	1.27	*73.47*
Don't Export	25.67	13.93	3.67	0.73	*44*	39.60	2.93	0.73	0.73	*42.53*
Total	70	38	10	2	*120*	108	8	2	2	*116*

Actual - Expected Values

					Total					*Total*
Export	-5.33	0.93	3.67	0.73	*0.00*	-4.40	2.93	0.73	0.73	*0.00*
Don't Export	5.33	-0.93	-3.67	-0.73	*0.00*	4.40	-2.93	-0.73	-0.73	*0.00*
Total	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00	*0.00*

Test Statistic

					Sum Sq Errors					*Sum Sq Errors*
	0.64	0.04	2.12	0.42	*3.23*	0.28	1.70	0.42	0.42	*2.83*
	1.11	0.06	3.67	0.73	*5.57*	0.49	2.93	0.73	0.73	*4.89*
					8.80					*7.72*
					p-Value*					*p-Value**
					0.032					*0.052*

* p-Values indicate statistically significant differences in export propensity across differently-sized firms, indicating that smaller firms are significantly less likely to export than larger firms. However, as the right-hand column indicates, the number of employees at which this threshold occurs is arbitrary, and at the choice of the analyst.

employees, firms with 100-200 employees, firms with 200-500 employees, and firms with more than 500 employees. We report the results on the right hand side of Table 1. This example shows that 4.40 fewer firms with less than 100 employees export than would be expected. The test statistic reveals statistically significant differences. The p-values indicate statistically significant differences in export propensity across differently sized firms, and indicate that smaller firms are significantly less likely to export than larger firms. However, as the right-hand column indicates, the number of employees at which this threshold occurs is arbitrary and at the choice of the analyst.

Therefore, the data provides the same support of the existence of a threshold at an arbitrary division of the data (100 employees) as it does for the Mittelstaedt et al. division of the data at twenty employees. The evidence for the existence of an exporting threshold at 20 employees is not compelling, and we view the existence of an exporting threshold at 20 employees as possible, rather than conclusive. Our analysis of a very similar data set fails to support the Mittelstaedt et al. conclusion that "firm size serves as a necessary as well as a sufficient condition for exporting success" (2003). Our evidence does support the conclusion of Wolff and Pett (2000) and others who conclude that even micro firms are capable of exporting.

RESEARCH AND POLICY IMPLICATIONS

Although we find that firm size has a significant impact on export propensity, we fail to find a threshold at twenty employees. In fact, we find that even the smallest firms —those with zero or one employees—are capable of exporting. We find that 20-employee threshold is not an absolute value, but is a result of the specific partition of the dataset. We find that the evidence supports the existence of a "threshold" at any arbitrarily chosen partition value; that is, the evidence fails to support the existence of a threshold at any particular number of employees. Our evidence fails to support the Mittelstaedt et al. (2003) findings; however, our evidence is consistent with the findings

of Wolff and Pett (2000), Autio et al. (2000), and others.

With this paper, our contribution to the literature is an additional set of results showing that all firms, even very small firms, are capable of exporting. With this finding, we help dispel some of the inconsistencies regarding the relationship between exporting and firm size reported in the literature. We have not conclusively resolved the empirical inconsistencies in the relationship between firm size and exporting, but we do provide another piece of evidence that moves us in that direction. Like Olson and Gough (2001), we conclude that future studies would be more useful if researchers pursue the performance implications of exporting by very small firms, rather than pursue more correlation studies of the sort we have presented in this study.

Mittelstaedt et al. (2003) also offered suggestions to policy makers based upon their conclusions about firm size and export activity. They argued that policy makers should focus on fostering domestic growth strategies rather than exporting growth strategies for micro firms, given their result that micro firms are too small to effectively export. Given our inability to support their research finding, we conclude that this advice may be misguided to the extent that it is based upon their empirical finding.

Large firms usually start as small firms and grow over time. Rather than growing in a consistent and predictable fashion, small firms follow many different paths toward growth. Furthermore, export activity is not neatly described in a simple 1-2-3 fashion. Early research accepted the stages model of internationalization (Johanson and Vahlne, 1977), which argued that small firms gradually began exporting and escalated their efforts as they grew and gained experience. Bilkey (1978) and others essentially argued that exporting is a process of development. However, more recent research questions this perspective. McDougall, Shane, and Oviatt (1994) and Oviatt and McDougall (1995) argued that some ventures are created with the intent to sell internationally. Autio, Sapienza, and Almeida (2000) and Rialp-Criado et al.

(2003) label this the "born-global" trend, whereby new ventures are launched with cross-border business activities in mind. Given our findings that micro firms can and do achieve export success, we argue that if policy makers continue to assist micro firms with their exporting efforts, then these firms may grow to become large firms.

Our results have a practical message for business owners and business assistance professionals. Our results imply that business owners should not be dissuaded from exporting simply because their firm is very small. We find no evidence of a minimum size below which exporting is necessarily a losing proposition for firms. What we find is that the smallest firms are capable of exporting, even if fewer micro irms export than do larger firms. Our results have a similar message for business assistance professionals. Given the ability of micro firms to export and the absence of a minimum size threshold for exporting ability, business assistance professionals should not hesitate to recommend or support micro firm exporting, on general principle. A micro firms' exporting success will depend on the firm's particular market and on the skill and strategy of the business strategist, but not on the number of employees.

REFERENCES

Aitken, B., Hanson, G.H., & Harrison, A.E. (1997). Spillovers, foreign investment, and export behavior. *Journal of International Economics*, 43: 103–132.

Autio, E., Sapienza, H.J., & Almeida, H.J. (2000). Effects of age at entry, knowledge intensity, and immitability on international growth. *Academy of Management Journal*, *43*: 909.

Baird, I.S., Lyles, M.A., and Orris, J.B. (1994). The choice of international strategies by small businesses. *Journal of Small Business Management*, 32: 48.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17: 99–120.

Bilkey, W.J. (1978) An attempted integration of the literature on the export behavior of firms. *Journal of International Business Studies*, 9: 33–46.

Burpitt, W. & Rondinelli, D.A. (2000). Small firm's motivations for exporting: To earn and learn? *Journal of Small Business Management*, 38(4): 1–14.

Cooper, R.G. & Klienischmidt, E.J. (1985). The impact of export strategy on export sales performance. *Journal of International Business Studies*, 16: 37–55.

Czinkota, M. & Tesar, G. (1982) *Export Management*. New York: Praeger Publishers.

Czinkota, M.R. & Johnson, W.J. (1983). Exporting: Does sales volume make a difference? *Journal of International Business Studies*, 14: 147–153.

Dhanaraj, C. & Beamish, P. (2003). A resource-based approach to the study of export performance. *Journal of Small Business Management*, 41(3): 242–261.

Hollenstein, H. (2005). Determinants of international activities: Are SMEs different? *Small Business Economics*, 24: 431–450.

Johanson, J. & Vahlne, J. (1977). The internationalization process of the firm–A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(Spring-Summer): 23–32.

Kaynak, E. & Kothari, J. (1984). Export behavior of small and medium-sized manufacturers. *Management International Review*, 2: 61–69.

Lall, S. & Kumar, R. (1981). Firm level export performance in an inward looking economy: The Indian engineering industry. *World Development*, 9(5): 452–463.

Leonidou, L. (2004). Internationalization, strategic behavior, and the small firm: A comparative investigation. *Journal of Small Business Management*, 42(3): 245–262.

Levesque, M. & Shepard, D.A. (2002). Entrepreneurs' choice of entry strategy in emerging and developed

markets. *Journal of Business Venturing*, 19: 1–26.

McDougall, P., Shane, S., & Oviatt, B.M. (1994). Explaining the formation of international new ventures: The limits of theories from international business research. *Journal of Business Venturing*, 9(6): 469–487.

McDougall, P. & Oviatt, B.M. (1999). New venture internationalization, strategic change, and performance: A follow-up study. *Journal of Business Venturing*, 11(1): 23–40.

Mittelstaedt, J.D., Harben, G.N., & Ward, W.A. (2003). How small is too small? Firm size as a barrier to exporting from the United States. *Journal of Small Business Management*, 41(1): 68–84.

Mittelstaedt, J.D. & Ward, W.A. (2005). Location, industrial concentration and the propensity of small US firms to export. *International Marketing Review*, 23(5): 487–503.

Moini, A.H. (1995). An inquiry into successful exporting: An empirical investigation using a three-stage model. *Journal of Small Business Management*, 33(3): 9–25.

Olson, P.D. & Gough, N. (2001). Export planning and performance: An organizational culture perspective on small firms. *New England Journal of Entrepreneurship*, 4(1): 31–39.

Oviatt, B.M. & McDougall, P. (2000). International entrepreneurship: The intersection of two research paths. *Academy of Management Journal*, 43(5): 902–906.

Oviatt, B.M. & McDougall, P. (1995). Global start-ups: Entrepreneurs on a worldwide stage. *The Academy of Management Executive*, 9(2): 30–43.

Penrose, E. (1959). <u>The Theory of the Growth of the Firm</u>. New York: Wiley.

Pope, R.A. (2002). Why small firms export: Another look. *Journal of Small Business Management*, 40(1): 17–26.

Rialp-Criado, A., Urbano, D., & Vaillant, Y. (2003). The born-global phenomenon: A multiple case study research in

Spain. *Proceedings of the 2003 Annual Conference of the International Council for Small Business*.

South Carolina Department of Commerce (2000). *2000-2001 South Carolina Industrial Directory*. Columbia, SC: South Carolina Department of Commerce.

South Carolina Export Consortium. Retrieved 1 August 2003. http://www.scexports.net/.

Thomas, D.E. & Grosse, R.E. (2005). Explaining imports and exports: A focus on non-maquiladora Mexican firms. *Multinational Business Review*, 13(1): 25–40.

U.S. Census Bureau (2006). Accessed 21 May 2006. http:// www.census.gov/.

U.S. Census Bureau (2007). A Profile of U.S. Exporting Companies, 2004-2005. Press Copy. 10 January 2007.

U.S. Department of Commerce. Office of International Trade (2004). Accessed 21 June 2004. http://www.sba.gov/oit/export/useac.html.

U.S. General Accounting Office (1992). Export promotion: Problems in the small business administration's programs. Washington, D.C. Report #GAO/GGD-92-77.

U.S. General Accounting Office (2001). Export promotion: Government agencies should combine small business export training programs. Washington, D.C. September 2001, Report #GAO-01-1023.

Venkataraman, S. (1997). The distinctive domain of entrepreneurship research: An editor's perspective. In: Katz, J. & Brockhaus, R. (eds), *Advances in entrepreneurship, firm emergence, and growth*, 3: 119–138. Greenwich, CT: JAI Press.

Wolff, J.A. & Pett, T.L. (2000). Internationalization of small firms: An examination of export competitive patterns, firms size, and export performance. *Journal of Small Business Management*, 38(2): 34–47.

Wright, P.C. (1993). The personal and the personnel adjustments and costs to small businesses entering the international market place. *Journal of Small Business Management,* 31: 83.

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