Industrial development typically focuses on companies that are grouped by what they make. Regional industrial development often attempts to encourage product-based clusters—such as biotechnology, robotics, and electro-optics—to flourish locally. One of the central advantages of focusing on such product-based clusters is simply that their cluster is easily defined by government statistics. Thus, the relative success of product-based clusters can be measured and tracked, both locally and nationally.

However, there are other industrial clusters that can prove vitally important to regional development, but are not easily identifiable with government data. Hidden clusters often consist of firms who share a common customer or downstream industry, rather than a common product-line. The Pittsburgh region has a successful customer-based cluster, whose light has been hidden from view—specifically, a cluster of suppliers to the steel industry. The basket that hides the importance of this cluster to our region has been largely formed by the limitations of government codes and statistics, but is partially the result of mistaken assumptions about the current relevance of the steel industry to our economy.

When the steel industry restructured in the 1980s, Pittsburgh suffered an economic setback that has few historical parallels among major American metropolitan regions. However, many of the firms that were located in Pittsburgh to supply the steel industry have remained a vibrant industrial cluster, providing high-wage jobs and attracting new firms. In short, the steel supplier cluster has been a source of economic resilience for the region, even if it is a relatively unrecognized source.

Pennsylvania currently has less than 6 percent of operational steel-making capacity, but the state retains one-fourth of the companies that identify themselves as suppliers to the steel industry and nearly one-half of the raw material and machinery and equipment suppliers to the steel industry. The majority of these firms are located in and around the Pittsburgh metropolitan region, with many local supplier firms representing national headquarters for large corporations. The variety of goods and services provided by these firms is substantial, ranging

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THE PITTSBURGH CLUSTER OF SUPPLIERS TO THE STEEL INDUSTRY (cont.)

These firms do and why they do it in the Pittsburgh region. We also will recommend how policymakers can take advantage of our findings to help support this valuable foundation for economic activity in the region.

The AIST identified 289 regional firms in the steel supplier industry. The survey respondents include 77, or 27%, of these firms. These firms range from small, recently-formed suppliers to large, multinational enterprises. About two-thirds of the survey respondents are single-plant firms, and over half of those plants have fewer than 20 employees. Using the employment ranges provided by the respondents, the single plant firms represent roughly 2,000 employees, with the multi-plant firms adding at least another 2,000 employees in the Pittsburgh region.

Using separate data derived from the Quarterly Census of Employment and Wages (ES202), the total employment in the steel supplier industry in the Pittsburgh region is estimated to have been 12,121 workers in 2003 with a combined total payroll of $687 million. The average annual wage for these workers is $56,669, which is 58% above the average wage and salary disbursements in the region of $35,976 in 2003.

Although steel-related industry in the region has the reputation of being comprised of older, more established firms, one-third of the survey respondents started operations in the Pittsburgh region after 1990. Nearly one-half of the smallest firms (less than 20 employees) have start dates after 1990. These data indicate an important dynamic element of entrepreneurial start-ups within the cluster.

In addition to the entrepreneurial element, Pittsburgh remains an important national and international headquarters for many large, multinational steel suppliers. Of the multi-plant firms, about 60% have their U.S. headquarters in the Pittsburgh region and 30% have their international headquarters in the region.

Over two-thirds of respondents focus the majority of their sales efforts on the steel industry, with nearly all of the respondents having made a sale to the steel industry within the last six months (see figure). This also demonstrates that, although the cluster firms concentrate on the steel industry, they are not captive suppliers and also sell to non-steel markets.

Of course, with the regional decline in steel capacity, Pittsburgh-based suppliers cannot afford to have a regional marketing focus either. Over half of the respondents focus their sales effort on national markets and about one-third on global markets. In addition, nearly half of the respondents report that total sales to the steel industry are increasing, even though steel sales are declining as a proportion of their overall sales.

Although the sales and marketing efforts are focused on broader geographic regions, many of the respondents report that their location in Pittsburgh is an important source of...
About 38% of the respondents reported that one or more of these key business factors were Pittsburgh-based. This issue is important for further study, since several of the respondents have indicated that the Pittsburgh region has a reputation as “one-stop shopping” for the steel industry, where steelmakers can readily find, for example, a partnership that combines engineering design and high-tech equipment supply.

Preliminary survey results also indicate that the regional labor supply is an important source of stability for the steel supplier cluster. Three-fourths of the respondents report that the majority of their workforce is recruited locally, with nearly 40% reporting that their entire workforce was recruited locally. Thus, it is not surprising that 60% of the respondents report that their location in the Pittsburgh region is a positive or critical factor in labor retention.

Not only is the local labor supply important to the firms individually, it appears to be an important factor in creating the cluster as well. Over two-thirds of respondents have either recruited an employee from or lost an employee to, another Pittsburgh-area steel supplier. Labor movement between firms in a regional cluster is an indicator of a cluster’s cohesiveness and can be an important method for shared information and technology development.

This brief synopsis clearly points to the vitality of the Pittsburgh cluster of suppliers to the steel industry. The cluster includes both small plants and national headquarters of larger firms, many of which started up after the region had lost most of its traditional steel base. The participants in the cluster report strong and growing sales of a diverse array of products and services to the steel industry, both nationally and globally. In addition, regional steel suppliers identify the benefits of being in the cluster—access to customers, suppliers, networks, and labor—as the most important benefits of locating in the area.

We expect our final results to further clarify the vitality and importance of this cluster to the Pittsburgh economy and to provide more detailed descriptions of the regional market conditions faced by the firms within the cluster. Our results should enable regional policymakers, development experts, and university administrators to shape specific policies that would support the further development of the cluster.

Regional analysis and historical experience teach us that every major region should expect decline in some of its key industries over time, but what sets some regions apart from others is their ability to rebound from such loss and find rejuvenation in new activities. Nearly 50 years ago, a major study of the Pittsburgh region, sponsored by the Pittsburgh Regional Planning Association, speculated that the scale of steel manufacturing in this region would limit the region’s ability to respond. The reasoning was sound: firms linked to steel production as suppliers had a strong local market, but little experience exporting their services beyond our regional boundaries.

However, survey respondents in Pittsburgh’s cluster of steel suppliers demonstrate that today’s firms export very well, indeed. Today, the resilience of the Pittsburgh economy continues to be evident, and Pittsburgh’s historically signature industry — steel — remains an important contributing factor to the region’s vitality.

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### 2003 Steel Supplier Industry, Pittsburgh MSA

- **Average employment**: 12,121
- **Total wages**: $686,895,304
- **Average annual wage**: $56,669

*Source: compiled from ES 202 employment data*
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