

## Overview

Over the past two decades, several regions of the United States have developed strong local economies based on high-growth, technology-based firms that are engaged in the systematic development and commercialization of new products, processes, and services. These firms, and the industries they compose, are a major source of new jobs in the manufacturing sector and an important factor in U.S. international competitiveness and balance of trade. They are also a key source of the innovations that are essential to increased productivity in more mature industries. As a result, several Federal policies are aimed at encouraging their growth. In addition, these high-technology industries are also becoming the targets of the economic development strategies of many State and local governments, as well as the efforts of corporations, universities, and other private sector groups.

This background paper presents the preliminary results of a census of existing State government pro-

grams to stimulate, attract, or retain high-technology industrial development. As such, it represents an update of similar studies conducted by the State of California for the National Governors' Association (NGA) (*State Activities to Encourage Technological Innovation*, October 1981, revised February 1982) and by Venture Economics, Inc. (*Source Guide of Government Technology and Financial Assistance*, Capital Publishing Co., October 1982). Much of the impetus for such studies comes from an increasing awareness of the impact of State and local initiatives on the creation of new businesses. In addition, recent changes in Federal policy have put increasing emphasis on the role and responsibility of the States in controlling the distribution of public funds and in promoting their own economic development and well-being.

## Scope

Later components of OTA's assessment of *Technology, Innovation, and Regional Economic Development* will address the factors that influence the birth and location of high-technology firms and the role of high-technology industries in the growth and revitalization of the U.S. economy. We have given priority to the identification of State initiatives for high-technology development, however, in response to both the desires of the Committees of Congress that requested this study and the recommendations of the OTA Planning Workshop held in July 1982.

The purpose of this census was to identify the fullest range and variety of State initiatives for the encouragement of high-technology industrial development. As a consequence, it cast a wide net—both "high-technology programs" and "high-technology industries" were defined broadly (see below) in order to catch as many potential initiatives as possible, as well as the similarities and differences between these initiatives.

## Methodology

Based on the NGA and Venture Economics studies cited above and additional literature search, project staff developed a list of known high-technology initiatives and names of contacts. In States where no initiative was known, a call was placed to the Washington Office of the Governor; if this turned up no contact, a call was made to the Office of the Governor in the State capital. In each State contacted, an effort was made to identify not only the manager of individual programs, but also the one person in the State government most knowledgeable about its high-technology industrial development initiatives. In many cases these proved to be the same person.

Project staff called the managers of known programs in order to determine the current status of each program and to verify available information

about its purpose and funding level and the services it provides. Where no dedicated program had previously been identified, the contacts were asked if their State had any high-technology incentive program and, if yes, to describe the mission of that program and the services it provides. In addition, they were asked for information about other programs, such as vocational and technical training programs funded by the State, as they relate to a high-technology development strategy. In States with no dedicated high-technology program, the contact was questioned about the extent to which general industrial development programs might also promote high-technology development. In addition, questions were asked about overall State strategy in general economic development, and the place of high-technology industries in this development.

## Preliminary Taxonomy

The census data gathered by OTA have been coded and stored according to a preliminary taxonomy of program types and services. This taxonomy, based on earlier studies and literature searches, includes 5 descriptive codes for “universal categories” or program types, in addition to about 40 functional codes for specific services that are (or could be) provided to high-technology firms by one or another of these program types. Although formatting constraints did not allow for extensive comments, codes were added over time to capture the unique features

and qualities of different State efforts. This results in some overlap—individual initiatives may be classified in two different program categories, and some programs may be listed as offering up to 10 different services—but it also indicates the range and diversity of the tactics that have been employed by State governments to encourage high-technology development. The program and service codes are listed in table 1 for ease of reference and comparison in discussion that follows.

**Table 1.—High-Technology Development Programs and Services**

<b>Program types</b>		
High-technology development	training by State	State resources promotion
High-technology education	technical support by State	Task forces and commissions
Capital assistance	link with university	Tax incentives
Labor/technical assistance	Legislation	reduction in corporate tax
General industrial development	Licensing assistance	abatement of property tax
<i>Functional codes (Program services)</i>	Loans	freeze on assessed value
Enterprise zones	debt	exemption from sales tax
Industrial revenue bonds	equity	Venture capital
Information dissemination	subordinated	direct (startup)
Investment capital	stock or royalty rights	direct (product development)
investment in survival	guarantees	bond issue to raise funds
Grants	long-term low-interest	royalty or stock rights
research	Market development	assistance in finding
startup	assistance	
development	Office or equipment	
training	provision	
Labor	Physical plant assistance	
grant for jobs created	Patent searches	
training vouchers	Product development	
training technical staff	assistance	

SOURCE Office of Technology Assessment