

INITIATIVE: DATA ENTRY AND ECONOMIC DEVELOPMENT IN THE EASTERN CARIBBEAN

A Research Project by Stephen P. Dawkins



Thirtieth Session

1987 - 1988

The Senior Seminar



United States Department of State Foreign Service Institute

This study has been prepared as part of the curriculum of the Senior Seminar. The views expressed in the study are those of the author; they do not necessarily represent either those of the Foreign Service Institute or of the Department of State.

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EXECUTIVE SUMMARY

President Reagan's Caribbean Basin Initiative of 1983 raises to a U.S. national priority the economic development and political stability of the Caribbean. The countries of the Eastern Caribbean, however, are struggling to make the transition from agricultural economies to service economies. In addition to tourism, information industries such as data entry offer excellent prospects for development.

The data entry industry takes "hard copy" data such as a credit card carbon, an airlines ticket stub, or any piece of paper with letters or numbers on it to a data entry operator who types the same data into a computer console. This data then goes to a magnetic disc and is sent either by air freight or a satellite communications link to the U.S. Once in a computer format, the data can be analyzed, manipulated, or printed.

This paper investigates the conditions for developing data entry services in Barbados, St. Lucia, St. Kitts-Nevis, Grenada, Montserrat, and Antigua. The author visited data entry plants there during February 1988. In 1987 and 1986 he visited similar plants in Barbados, Haiti and the Dominican Republic.

Successful data entry plants exist in the Eastern Caribbean. There have been some failures, but the record to date shows steady, if unspectacular, growth of the industry. This paper should assist business people in assessing the relative merits of the islands investigated, as well as provide general advice on how to set up and manage a data entry plant.

Conditions for buttressing the original objectives of the CBI remain evident in the Eastern Caribbean, or West Indies as it is also known. Skillful management, sensitivity to local conditions, the ability to demonstrate leadership in supervising the young women who do the data entry work, and success in promoting this service in the U.S. all underlie data entry development in the Eastern Caribbean.

This paper was prepared as an individual research project to meet the requirements of the Department of State's Senior Seminar Class of 1988.

I. THE CBI SERVICE SECTOR - THE FUTURE OF DATA ENTRY SERVICES

<u>ISSUE FOR DECISION:</u> Can data entry operations in the Eastern Caribbean stimulate economic development and strengthen the Caribbean Basin Initiative?

BACKGROUND:

President Ronald Reagan signed the Caribbean Basin Economic Recovery Act, Public Law 98-67, on August 5, 1983. Known as the Caribbean Basin Initiative (CBI), it was designed to contribute to the region's political stability and economic growth. The CBI embodies a program of trade, economic assistance, and tax measures to generate economic growth through increased private sector investment and trade.

Coming into effect on January 1, 1984, the CBI provides 12 years of duty-free access for most U.S. imports from CBI states. Exceptions include textiles, petroleum, footwear, flat goods such as gloves and luggage, certain watch parts, and canned tuna. Ethanol enters dutyfree only if it meets special rules of origin.

Then in February 1986, President Rea: gan gave a major boost to the CBI when he allowed special access to the U.S. market for apparel assembled in the Caribbean Basin region from cloth formed and cut in the U.S. Exports of textiles from CBI countries to the U.S. jumped 27.4% in 1986, and another 32% during the first half of 1987. Further growth is permitted under a program of guaranteed access levels.

In August 1987, Democratic Congressman Sam Gibbons, Chairman of the House Trade subcommittee, introduced in Congress the Caribbean Basin Economic Recovery Expansion Bill. It would expand the current duty-free treatment of Caribbean products and extend the program for 12 years beyond its current 1995 expiration date to the year 2007.

This study will focus on the Eastern Caribbean -- Barbados and the Organization of Eastern Caribbean States: Antigua, Dominica, Grenada, Montserrat, St. Kitts, St. Lucia and St. Vincent. All these English-speaking islands of the West Indies offer particular advantages to U.S. business seeking data entry processing services.

The CBI does not seek to promote traditional Caribbean products -- bananas, rum, mangos, beef. A major tenet of the CBI is to entice light manufacturing and assembly operations from the Far East to the Caribbean, as well as new investment from the U.S. Caribbean non-traditional exports to the U.S. under CBI at first seemed to fit the normal pattern -- textiles, computer components, stuffed toys, shoes. But the rapid growth of the

CBI data entry industry now marks this industry as a growth sector requiring further study. A unique issue here is that the data entry import often arrives in the U.S. as an electronic pulse invisible to normal measurement.

As data-entry work increases in the U.S. -- when information on paper is typed onto computer diskettes -- some of that work will go offshore. As the rest of this paper will make clear, the Eastern Caribbean states offer opportunities to perform this data entry work because of good telecommunications, regular airline service, a skilled workforce whose native language is English, a work ethic, and democratic governments which support free enterprise. Costs, therefore, become the crucial decision point. More on that later.

II. DATA ENTRY OPERATIONS TODAY

About 4,000 Caribbean Basin workers now process data into computers. The area from Jamaica, the Dominican Republic, Haiti, Barbados, Aruba, El Salvador to the smaller OECS states of the Eastern Caribbean has become a center for data entry and data processing. The Department of Commerce projects some 20,000 additional data entry jobs in the Caribbean by 1990, although this projection assumes the introduction of regional telet ports. Teleports offer satellite links for inexpensive high-speed data transmission to the U.S. mainland, replacing the dispatch of computer data discs by air freight to the U.S.

In recent years the market for data entry services has expanded. The major application of these transnational data flows has been in the financial management of large corporations in the developed countries. From greater efficiency in the production process, and in marketing and distribution of goods both in the U.S. and abroad, data services can provide information on consumer tastes, distribution channels, transport facilities, advertising requirements, the financial status of buyers, past performance of prospective suppliers, and the competition.

Data services have revolutionized banking, insurance, consulting, and engineering because of new methods of delivering the information product. Modern telecommunications can move the product today at higher speed and lower cost than heretofore. Moreover, where direct foreign investment used to be a prerequisite for offshore data entry processing, alternative ways, such as contracting, can supply the same service today.

NATIONAL DEVELOPMENT

the introduction of regional tele: A United Nations study states that data Teleports offer satellite links for services are producer systems and have a much higher multiplier effect on local the U.S. mainland, replacing the conomies than most other services. Data service capabilities coupled with skilled, lower cost labor are important to developing countries. The UN urges developing countries to integrate data systems into their overall development plans.

It is not enough for developing countries to sell data and buy organized information, the way developing countries in the past traditionally sold raw material and bought manufactured goods.

FACILITIES REQUIRED

The typical data entry firm in the Eastern Caribbean occupies a building shell with utilities hookups, well lighted work spaces, airconditioning, individual desks with a microcomputer on each for the data entry operator, and a central network server unit to collate and reconcile the results. An American industry expert who has set up and run two successful data entry firms in the Eastern Caribbean states that a firm needs between 60 and 100 workers to be profitable. Too many firms now have less than a dozen workers. Unless they can expand, they will not prove viable, according to this expert.

The largest and most successful data entry firm in the Caribbean is American Airlines' wholly owned subsidiary, Caribbean Data Services, in St. Michael, Barbados. It started in 1983, employed 309 people in January 1987, and now in February 1988 employs 450.

III. THE EASTERN CARIBBEAN ENVIRONMENT

THE CBI : DATA ENTRY AND ECONOMIC DEVELOPMENT IN THE

'EASTERN CARIBBEAN

Every CBI country encourages CBIrelated American investment, although economic conditions vary from country to country. The presence of a U.S. Embassy can facilitate dealing with a Caribbean government, particularly when policy and practice diverge. Barbados and all the OECS states now have investment promotion offices that offer a package of investment incentives that is more or less standard.

ENTREPRENEURS?

A responsible, organized private sector that can see benefits in foreign investment contributes to the shared goals of the CBI. However, Eastern Caribbean businessmen in the past have often shown more interest in importing goods and selling them at high markups, than in Exports were the traditional exportina. coffee, bananas, fish, and sunburn. As a group, these local businessmen had no experience in cracking the U.S. market, nor did they relish entrepreneurial risktaking. In Jamaica, Haiti, and the Dominican Republic, however, export-oriented businessmen knew their way around U.S. market barriers and have moved rapidly to take advantage of CBI's expanded access to the U.S. market.

THE STATISTICS

The potential for economic development in the Eastern Caribbean is overshadowed by the impending 1996 demise of the CBI.

Congressman Gibbons' bill would put this problem aside and reassure all Caribbean countries of the priority the U.S. places on the Caribbean Basin. Yet it is difficult to develop CBI statistics that portray with accuracy trade flows within the region. CBI trade statistics are skewed by petroleum imports from the Middle East channeled through The Netherland Antilles and The Bahamas, as well as direct oil imports from Trinidad and Tobago.

Traditional import statistics, therefore, do not measure the impact of CBI on the development of the Caribbean. Only by looking at the non-traditional imports can we, over time, measure CBI's impact.

A key ingredient to increased trade and services here will be the continued growth of the U.S. service industry. As the U.S. service industry prospers, so will service industries in the Eastern Caribbean. The Department of Commerce states that the U.S. service industry accounted for 90% of the 36 million new jobs created in this country during the last 20 years. If anything, that trend will continue and the opportunity for in- upgrade quickly and provide even a 1.5 or creased service industry investment in CBI states should grow apace. The value-

added input of the Caribbean data entry operator, for example, supports a growing variety of related service sector work in the U.S.

IV. TELECOMMUNICATIONS

Cable & Wireless

No mention of telecommunications in the Caribbean can ignore the significant role of Cable and Wireless PLC (public limited company), a British multinational giant headquartered in London. With 25,569 employees worldwide, an annual payroll of US\$467 million and fixed assets of US\$1.9 billion, Cable and Wireless provides the bulk of telecommunications services in the Caribbean. Moving now to an entirely digital, direct-dial capability, Cable and Wireless possesses more capacity than any forseeable increase in traffic would require in the next ten years.

Cable and Wireless can, for example, upgrade its capacity in any given country quickly. In Grenada, which has the lowest capability of the islands I visited, Cable and Wireless now can provide only a slow-speed circuit of 2.4 kb (kilobit), equivalent to a 2,400 baud modem on a personal computer. But given the traffic, the local managet assured me he could 2.0 megabit dedicated leased circuit. Going from 2,400 bits to 2,000,000 bits

means that capacity is virtually unlimited.

The fact that Grenada lacks a satellite earth station would not be a barrier. For example, a data

entry plant in Grenada situated in the **USAID**-financed industrial park could dump its data onto the local telephone line to Cable and Wireless which would instantaneously relay that data via a microwave tower to Cable and Wire-



PRICE

The touchy issue is price. Cable and Wireless service is expensive. The firm earns a handsome return on capital. It is

BARBADOS PLANT B

LABOR COSTS	32.3%
SUPERVISORY OVERHEAD	10.1%
RENT	2.6%
🖾 UTILITIES, SUPPLIES	15.2%
EQUIPMENT, DEPRECIATION	29.0%
H MISCELLANEOUS	3.5%
TELECOMMUNICATIONS	7.3%

less in St. Lucia, where a modern, highcapacity earth station should be on line in June 1988. From there the earth station would send the data up to a satellite via a dedicated leased circuit and through the international telecommunications network down into the U.S.

All the Cable and Wireless managers with whom I spoke stressed the capacity they now have in place, and their ability to upgrade and expand to meet market need.

clear that if data entry firms could reduce their telecommunications costs, from several thousand dollars per month, for example, to a few hundred, then data entry in the Eastern Caribbean could steal a competitive march on competing data entry plants in other regions. Notice in the pie chart above, however, that one successful data entry plant in Barbados pays out only 7.3 % of its total operating costs for telecommunications. Another plant in the Dominican Republic pays out Nonetheless, lower cost telecom-14.5%. munications could replace air freight return of computer discs, thereby cutting operating costs and increasing the security of the data being returned.

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TELEPORTS

Many proposals to establish "teleports" in the Eastern Caribbean have floated around the region. In essence, a teleport is a satellite earth station that transmits data not through the <u>international</u> telecommunications network, such as via Cable and Wireless, but directly through a <u>domestic</u> satellite and down to the U.S. user. Such a circuit need not go through even a U.S. telecommunications company, but could go down to a dish mounted on a company headquarters. By going around Cable and Wireless and the U.S. telecommunications companies on the downleg, significant savings are possible.

In technical terms, however, the only difference between a teleport and a Cable and Wireless earth station, such as exists in Barbados and St. Lucia, is that the teleport would use a domestic satellite link and, presumably, cost less. On the other hand, to construct a teleport from the ground up would cost at least \$2.5 to \$3 million. A large teleport in Puerto Rico reportedly cost \$3.2 million.

Teleports are not a necessary ingredient for data entry operations in the Eastern Caribbean. A single high speed 64 kilobit circuit, either satellite, microwave or cable, which transmits 64 kilobits of data per second, translates into about 64... pages of text <u>per second</u>. A human can type at most 2-3 pages of text a minute, so one high-speed circuit can handle the output of 1,000 workers going 24 hours a day. There is no evident requirement therefore for a teleport which would need 200 such circuits to hit its breakeven point.

The only way to bring a costly new teleport over the breakeven point is to provide telephone voice services. Voice is not efficient; in fact, its inefficiency provides much higher revenues to the telecommunications industry. Data, on the other hand, can be "packed" so that it is enormously efficient to send. Thus a teleport would ideally service a large industrial park dedicated to information industry operations -- data entry, data processing, translation services, and voice telecommunications.

For a data entry firm to lease one highspeed 64 kb data link, Eastern Caribbean to US, costs \$8,000-\$10.000 per month. Two such circuits, down and back, would run up to \$20,000 a month, or close to a quarter of a million dollars a year.

Teleport advocates state that a modern teleport offering under one roof highspeed satellite circuits could provide equivalent service for \$400 per month each way. Others scoff at this low figure.

A teleport promoter who tried and failed to establish a teleport in a Caribbgan country told me that there is no alternative to working with Cable and Wireless.

MAKE IT INTERESTING TO C&W

He opined after reflection that C&W might be willing to underwrite the costs of an integrated telecommunications system that tied the Eastern Caribbean states into the North American telecommunication network, which now includes the U.S., Mexico and Canada.

Some experts see no reason not to integrate the Caribbean systems into the North American systems. Cable and Wireless would probably not be opposed if it were the prime contractor of a new system in a profitable way. Cable and Wireless now has bilateral agreements with all the countries of the Eastern Caribbean which grant the necessary rights to conduct a telecommunications busi-So long as the new system was ness. worked out in accordance with the national policies of the countries of the region, Cable and Wireless and the countries concerned would be willing to look at the teleport issue. Obviously, both C&W and the Eastern Caribbean CBI states would have to work it out together.

At the present time, however, Cable and Wireless managers regard proposals to establish teleports as simply an illdisguised North American attempt to take over their business. To them: elee port is a bad word.

The teleport issue goes beyond data en-

try, however. Exports of U.S. telecommunications equipment, gaining a bigger share of the lucrative voice market and other issues come to the fore. Data entry, I repeat, is not dependent on the establishment of separate teleports. The capabity of Cable and Wireless to meet all telecommunications requirements is clear.

The issue is cost.

V. THE BARRIERS

PROBLEMS

The problems all investors face in CBI countries have been well documented. The U.S. International Trade Commission, for example, cited the inadequacy of general industrial infrastructure, ports, power, the high cost of air freight, and inland transportation. These barriers, simply put, add to the cost of doing business. Although Jamaica, the Dominican Republic and Barbados are far more advanced than the smaller island states of the Eastern Caribbean, all face these problems to some degree.

A second major barrier is the lack of experience of Caribbean firms in cracking the U.S. market. Local businessmen do not always know how to market their product or their service in the U.S., or how to form joint ventures.

To succeed at data entry, the service must be promoteded to consumers in the U.S. To date, the marketing of data entry in the U.S. remains the single most important barrier to expansion.

The Department of Commerce, the Department of State, the International Trade Administration's Caribbean Basin Business Office, and the U.S. Department of Agriculture's Office of International Cooperation and Development have promoted trade shows, printed newsletters, organized business meetings at the White House, arranged joint-venture "matches" and provided limited funding to business associations in CBI countries.

All CBI states have organized investment and trade promotion offices in their capital cities and in the U.S. Tax holidays, exemptions from import duties, training grants, foreign ownership and other inducements are offered by most CBI countries.

The germination time for all these efforts is lengthy, however, and it is too soon to estimate their effectiveness.

A third problem cited by experts, particularly businessmen from the Caribbean, is the perceived threat that successful non-traditional ventures that succeed under the CBI will fall victim to new U.S. protectionist measures. In fact, this is not an idle fear. The Congress has put restrictions on such successful Ca-

ribbean exports as ethanol, cut flowers, and citrus **since** the introduction of the CBI.

Some Congressmen seek to punish Haiti, a full member of the CBI, for political reasons. American investors find this Congressional involvement difficult to reconcile with the original goals of the CBI.

THE CULTURE GAP

Additional problems shared by the Caribbean with all other developing countries are inefficient local bureaucracies, a fear of political instability, controls on trade and different legal systems. Cultural differences are more important than many would like to admit. Even the English language spoken by West Indians and Americans can differ in significant ways. I could understand the news announcer on Barbadian television with no Talk shows, however, were difficulty. hard to understand. A minor problem that crops up again and again is that currency is quoted in U.S. dollars, Barbadian dollars and EC (Eastern Caribbean) dollars. Despite everybody's attempts to specify the currency in question, mistakes abound.

However, business leaders cite mismanagement as the key cause of the failure of certain data entry firms in the Eastern Caribbean:

Local managers, be they American or

West Indian, should know how to handle the communication problems between two sets of English speakers who often do not realize that they have misunderstood each other.

Moreover, West Indians are not accustomed to shift work hours. However, most data entry firms require two shifts to be profitable. A local manager told me a late shift suffered from poor productivity because many of the workers were moonlighting government employees who nodded off as the hour grew late. Perhaps a six-hour work late shift would prove more efficient.

THE AMERICAN SERVICE BUREAU

Landing new contracts is the major barrier existing data entry firms must overcome to continue operations. Not only should the service be sold in the form of a contract to perform data entry services, but the U.S. marketing organization must develop the required computer software program and send that down to the Caribbean plant before the hard copy arrives.

A successful U.S. data entry service bureau is Appalachian Computer Services of London, Kentucky, with 2,300 employees and a plant in both St. Kitts and Jamaica and ten others in the U.S. Appalachian President Ken James told me that data entry in the Caribbean remains open to development. Such service bureaus could play a key role in encouraging more data entry work in the Eastern Caribbean.

VI. DATA ENTRY AND THE UPSCALE NICHE

An example of a computer-aided data entry circle usually starts when a human enters the data by hand. For example, an airline reservation clerk in the U.S. enters the travelers's name, flight, date, etc. into a computer which prints the ticket.

The traveler then hands the ticket to an airline agent upon boarding the aircraft. For American Airlines, this ticket and all others received during that 24-hour period are gathered in Miami every evening and flown to Barbados to American Airlines' Caribbean Data Services plant just outside of Bridgetown, where hundreds of young women break the electronic data circle by entering again, by hand, the data on the ticket into a microcomputer.

The collated data is then flashed via satellite the next day to American's Tulsa accounting center. The turnaround time, from arrival of the ticket stubs in Barbados to receipt in Tulsa, is 30 hours. American's management then has the basic accounting data in its Tulsa mainframe required to record and analyze passenges levense, marketing information, middle-management reporting, cargo revenue, general accounting and payTHE CBI : DATA ENTRY AND ECONOMIC DEVELOPMENT IN THE -- 10

roll accounting.

Should new technology of the future relieve the corporation of that second human data break, either by electronic scanners, or by a "smart"ticket that can be electronically recorded, then data entry in the Caribbean or anywhere else would be another casualty of technology's advance. As Washingtonians know, the Metro fare card is a "smart" ticket. A machine reads it and records the data. Airline tickets could also be made up the same way. In fact, United Airlines now processes about 60% of its ticket stubs this way. Yet to go over 60% would raise costs because expensive equipment would have to be installed in every location United services.

Data entry industry leaders believe that most large and all small and medium firms that require data entry services will find the human hand preferable to more costly smart tickets. Experienced data entry operators can average over time 13,000 key strokes an hour. Advanced keyboards that work like a court stenographer's machines could increase output by 300-500%. Additional training, however, to learn how to use a combination of a few keys to produce complete words or phrases would be required.

COMPETITION

Data entry services located in the Eastern Caribbean should prove to be an increasingly important niche market for U.S. business and service bureau firms that specialize in contracting for offshore data entry. But the Far East poses stiff competition. The Far East, especially Sri Lanka, India, Indonesia, and Taiwan, now offer data entry services for large batch processing with excellent telecommunications support and wellcapitalized firms. In addition, Mexico, the Dominican Republic, and Ireland all promote data entry and have better infrastructure than the smaller Eastern Caribbean countries.

American Airlines runs a second data entry plant in the Dominican Republic with 40,000 square feet of factory space employing 206 people. Labor costs average one-third the costs in Barbados. This plant has proven exceptionally efficient in handling bulk shipments of credit card slips, entering the data on computer tape and turning the product around in 24 hours via a satellite circuit. The hard copy credit card slips are then returned several days later. In the Eastern Caribbean, a similar bulk data entry plant would now require 72 hours.

The Eastern Caribbean must, therefore, to cite Mr. Hartley Richards, President of the Barbados Chamber of Commerce, focus data entry on "high quality" work, such as typesetting encyclopedias and including analyses with data. Airline tickets are not the future, he said. Caribbean Data Services Managing Director for Operations. N. Vancourt Rouse, told me that data entry of the future must provide more value added at the front end, that is

in sorting, and on the backend by including reports, analyses, and innovative new services.

An integrated data entry and data processing plant offering a wide range of sophisticated services at present would appear to be too much for local Barbadian business firms to organize. Only American Airlines' Caribbean Data Services could now move in that direction. The second largest data entry firm in the Eastern Caribbean, NDL International in Barbados, with 270 employees provides data entry services to its parent firm in the U.S. It does not market its services.

Business sources suggest that a joint venture, for example, between U.S. investors and the private Barbados External Telephone Co. (Cable and Wireless holds 65%) might be worth pursuing. Government officials say no -- the Barbados Government prefers a private enterprise approach and would not join in such a joint venture.

VII. DATA ENTRY MARKETING IN THE US

GOVERNMENT

The Organization of Eastern Caribbean States (OECS) Antigua, Dominica, Grenada, Montserrat, St. Kitts-Nevis, St. Lucia. and St. Vincent form a distinctive regional grouping within the GBI. ••The •De-•• partment of Commerce's Foreign Commercial Service office at the U.S. Embassy in Bridgetown is working to develop a data entry industry development plan for the Eastern Caribbean that would include Trinidad and Tobago as well as Barbados and the OECS states. In May 1988, Commerce plans to schedule a Caribbean Connections Data Entry Mission to inform U.S. firms of ways they can cut their data entry costs by moving hand labor to the Eastern Caribbean.

While often discussed by Eastern Caribbean leaders, unity continues to elude the islands. An earlier attempt in 1958, the West Indies Federation, foundered on the conflicting political ambitions of island leaders and lack of preparation. Serious leaders today continue to believe Eastern Caribbean unity is not only possible, but worth pursuing. As steps toward unfication continue, particularly in the economic field, these island states will be better able to attract the attention of U.S. business.

All of these laudable efforts will help the Eastern Caribbean and U.S. business. Progress, however, will prove slow. Even if in the end formal political unity never happens, the progress made toward economic integration will be a plus for all parties.

PRIVATE SECTOR

On the U.S. and of the marketing effort
American managers are slow to think in international terms. Some feel personally uncomfortable when dealing with foreigners, and often avoid U.S. Embassies when overseas. Some American executives meeting with senior foreign government officials are just going "through the motions." In some cases the American business executive calls on the Embassy commercial attaché and then calls on a local government official and somebody from the Chamber of Commerce. But in the Caribbean, the motive may be only to write off a portion of the trip as a business expense, especially during the winter months. In contrast are the Japanese business men with their meticulous market studies, product development, advertising, and local sales networks. The Japanese work hard and the results speak for themselves.

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Competent marketing consultants could prove useful in bridging the gap between American managers and the Eastern Caribbean. Unfortunately, there is no shortage of amateur Caribbean consultants eager to write studies and provide advice as an excuse for a vacation. Unless they understand the data entry industry, however, their advice will lack the hard cost data studies essential to management decisions. In fact, at some Caribbean business meetings the American Caribbean consultants outnumber the serious business people with money to invest or contracts to let. Caribbean business and government-leaders have had experience with these vacationing consultants and view them warily.

VIII. MARKETING DATA ENTRY INTO THE 21st Century

THE CBI : DATA ENTRY AND ECONOMIC DEVELOPMENT IN THE

EASTERN CARIBBEAN

The future of the data entry industry in the Eastern Caribbean will depend on providing a more value-laden product, in a more timely manner, and with near flawless accuracy. Large batch processing will probably gravitate to larger countries such as Jamaica and the Dominican -Republic.

FAST TURNAROUND

The reader will recall the example of the 30-hour turnaround time for the American Airlines ticket stubs. Consider the following: a doctor in Boston examines his patient, scrutinizes the x-rays and lab reports, and then retires to his office to write up the patient history. He dictates the medical history, his diagnosis and recommended treatment into a machine that records his words on a magnetic belt. However, that dictaphone is connected to an 800 telephone number which is simultaneously transmitting his words to a data entry plant in Barbados or St. Lucia.

There the data entry worker pulls the magnetic belt off her machine, puts it into a transcribing machine and with the earphones on types what she hears onto a computer disc. Within minutes a proof-

reader trained in medical terminology checks the spelling and grammar. A quick proof by a supervisor and the text is transmitted to the local Cable and Wireless earth station which bounces it off a satellite down to a dish in Boston which sends the text over telephone lines to a printer in the doctor's office. He pulls off the finished printed text of his medical history. Turnaround time? Less than one hour.

The cost of such service via a Caribbean data entry firm would be less than if a secretary typed the medical history in the doctor's office. This example demonstrates the kind of niche market Eastern Caribbean data entry plants should develop.

SELLING THE SERVICE

To market data entry, from the mundane to the sophisticated, requires a selling job. Convincing corporate management, or state and local government officials, to ship their papers, their permanent hard copy records, overseas remains a formidable proposition. As an example, data entry firms in St. Lucia now enter Florida state police speeding tickets and expect to do New Hampshire traffic tickets too. To overcome resistance a sales force must stress:

RELIABILITY

lost a single piece of paper since it started in 1983;

-- the relative ease of tracking a lost carton among the island states of the Eastern Caribbean, compared to Latin America or Asia;

-- the direct courier services offered by Federal Express, BICPAC, and airlines to the U.S.

COST

-- the cost of data entry in the Eastern Caribbean runs from one-third to onehalf of U.S. costs;

-- economies of scale reward expansion;

-- direct investment is not required, only contracts.

ACCURACY

-- experienced data entry firms guarantee, in contracts, accuracy levels of 98% to 99%;

-- the English school system in the Eastern Caribbean turns out an educated labor force whose mother tongue is English.

-- the good record to date; e.g., Caribbe ean Data Services in Barbados has not

-- a mix of turnaround times is available in the region, from one hour to three

TURNAROUND TIMES

days in Barbados and St. Lucia, to 3-6 days in Antigua, Montserrat, St. Kitts and Nevis, and Grenada.

-- Cable and Wireless offers either a straight satellite uplink from Barbados and St. Lucia, or nearly equivalent service using microwave, submarine cable, or a combination of these to a satellite from other islands.

-- high-speed facsimile machines could send hard copy records from the U.S. in the future, although the cost factors are not firm.

IX. A BUSINESS PLAN

A business plan designed to take advantage of data entry potential in the Caribbean might look at three stages: a contract with an existing data entry firm; setting up a company subsidiary in the region to do in-house data entry; and expanding the latter to go beyond in-house work to contracting for any other outside data entry work that would prove profitable.

Caribbean Data Services, the American Airlines subsidiary in Barbados, is an example of a plant set up in 1983 to do inhouse work that expanded its services in 1988 to seek work from other corporations. The U.S. marketing effort is managed by a vice-president and staff in Dallas.

JUSTIFICATION

Justifying off-shore data entry is not difficult. Off-shore data entry work can cut labor costs, alleviate employee morale problems by unloading labor intensive, repetitive manual operations offshore, and move operations currently in the Far East closer to home in the Caribbean. U.S. national interests benefit too. The Department of Commerce estimates U.S. raw material content in Caribbean products at about 70%, as opposed to only 20% in products from the Far East. U.S. shipping, banking and insurance firms gain more business from Caribbean trade than from trade with any other region.

US LABOR

The Congress mandated the Department of Labor to review the impact the CBI would have on American labor. The third such report, dated September 24, 1987, confirms that preferential tariff treatment under the CBI "does not appear to have had an adverse impact on, or have constituted a threat to, U.S. employment." Exporting service jobs, however, could be opposed, particularly in U.S. cities hard hit by unemployment. Some Congressmen raised this point with the author when he and other State Department officials briefed them on CBI developments early in 1987.

Data entry, however, is considered dull, deadend work by most Americans. Labor unions regard it as akin to piece work in a textile mill and oppose data entry work in individual homes. It appears, therefore, that U.S. labor unions will not pose significant obstacles to American firms who move data entry work abroad, either on contract or to a subsidiary plant. In any event, the companies are free to do

similar work performed by Americans in the U.S. Some spoke with considerable emotion on the "unwillingness" of Americans to work hard. These managers also noted that many Americans in the lowwage sector of the economy did not speak English and that many of those who did had not demonstrated a respect for education. Judging from the work habits I observed in the various countries I visited, I would agree that Caribbean labor is excellent.

as they choose.

CARIBBEAN LABOR

Since data entry remains labor intensive, man-

Management style requires a paternalistic approach, however. In some countries of the region, unions play this role. But most plant managers will find that they



under the supervision of an American who uals. cannot deal with local people.

In almost every case, the worker we are The work ethic in the Eastern Caribbean talking about is a young woman in her remains strong. Caribbean-business peo-. late-teens or early 20's. Encouragement ple who had previously worked in the U.S. is essential to quality production. told the author that the work performed . Threats do not work. in their Caribbean plants was superior to

The manager must be accessible to each employee when she is faced with a personal crisis. Smart managers give line supervisors authority to approve one day off with pay every month for each woman, no questions asked. The manager should ignore this unwritten benefit. Note the lower labor costs in the Eastern Caribbean, as shown in the chart below.

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It appears that data entry work appeals to the former "good student." Not every young West Indian woman wants to work in the tourist industry. Nor does agriculture always appeal. The work ethic provides a societal reward of enhanced respect for those who use their brains.

Labor unions continue to play a role in some Caribbean economies, but much less in the service sector than among government employees or manufacturing workers. Successful managers told me that they had avoided unionization by dealing with their workers as human beings, being attentive to their concerns, and playing the paternalistic role with skill. In general, data entry workers prefer to avoid unions. Incompetent, insensitive management, however, invited unions. So do low fringe benefits.

A businessman on St. Kitts told me that, in retrospect, he had found unions preferable in his varied businesses because heretained the right to fire a worker, got three-year contracts father than the normal one-year understanding, and because he preferred to deal with an organized union leadership than whatever the shop floor tossed up at him.

THE CBI : DATA ENTRY AND ECONOMIC DEVELOPMENT IN THE

EASTERN CARIBBEAN

Two data entry plant managers told me they expected to be unionized in coming years. Union demands, they thought, would focus on fringe benefits such as free transportation, a lunch room, and an annual bonus. It is significant that their fringe benefits were the lowest of the plants I surveyed. Neither manager, however, believed unions would jeapordize their operations or be ideological.

LOCAL MANAGEMENT

Ken James, President of Appalachian Computer Services says that you need local management. Local line supervisors can be recruited and trained from among the most experienced data entry operators. Local plant managers, on the other hand, are harder to find. Yet, among the Caribbean communities in the U.S., West Indians with American college degrees and American work experience are easy to find. Some of these potential managers hold MBA degrees with several years of U.S. corporate experience. They might welcome the chance to go home to family and childhood friends.

If a U.S. firm sets up a data entry plant in the Eastern Caribbean, the manager whe sets it up should stay on for at least two or three years. During that time the U.S. firm can recruit a local national in the U.S., bring him or her down to the is-

land, and when the American departs put the local manager in as the plant manager. Salaries range from US\$40,000. to US\$60,000. See appendix A for cost data.

SUPPORT ORGANIZATIONS

All of the island states have national associations in the U.S. that could be contacted through their respective Embassies in Washington, or through trade associations such as the Eastern Caribbean Investment Promotion Service (ECIPS), also in Washington.

The Data Entry Management Association (DEMA) in Stamford, Connecticut is headed by Norman Bodek who established the first Eastern Caribbean data entry operation in the mid-1960's in Barbados. He remains active in promoting data entry in the Eastern Caribbean through newsletters, conferences, and professional advice.

Should an American firm draw up a business plan, help is available from the governments of the region, DEMA, ECIPS, U.S. embassies, and representatives of the industry itself. Peter Kelley, Vice Chairman of NDL International, of Denver, for example, proved the perfect host at his firm's 270-person facility in Barbados.

velopment is Caribbean Central American Action. Peter B. Johnson, "C/CAA" 's Ex-

ecutive Director, told me that: "...with the advent of upgraded telecommunications. the Eastern Caribbean states with their cost advantages, English-speaking work force, and pro-business governmental policies, have become a promising, high potential locale for data processing ... "

Local Caribbean infrastructure in the form of data entry trainers such as Agatha McDonald, Managing Director of International Business Services Ltd. in St. Lucia; data entry consultants like The Blackman Corporation Ltd. of Barbados; the telecommunications capability of Cable and Wireless; local government supported training programs for data entry workers; and the scheduled airline frequencies to the U.S., all support American business in the Eastern Caribbean.

In addition, each government provides, as noted earlier, a generally standard package of investment incentives.

The British High Commissioner in Barbados, Kevin F. Burns CMG, told me that the Eastern Caribbean countries must shift directly from agriculture to a service economy, without going through the manufacturing stage. The limited population in these island states does not offer the market required to support manufacturing for even the local market. In the future, data entry and other service The most important Washington based industries such as tourism will form the organization promoting CBI business de core of their development plans. Eastern Caribbean political leaders recognize this fact and are eager to attract Ameri-

can business.

The U.S. government's policy of supporting political stability and economic growth under the CBI goes hand-in-hand with the policies of the governments of the Eastern Caribbean. Good local management and intelligent U.S. marketing should lead to a data entry industry in the Eastern Caribbean of benefit to all parties. U.S. business community, in concert with DEMA, ECIPS, established firms such as Appalachian Computer Services, Caribbean Data Services, and the trade associations.

A vision of the future may not promise a paperless world, but surely far more data will be on computer tape than on paper as the years go by.

Data entry and the development of the Eastern Caribbean will surely complement each other.

X. ISSUE FOR DECISION -THE OBVIOUS ANSWER

The obvious answer is that data entry operations in the Eastern Caribbean can stimulate economic development and strengthen the Caribbean Basin Initiative.

Both the Departments of State and Commerce already know this and are alert to opportunities to advance data entry in the region. The American Embassies in Bridgetown, Barbados; Georgetown, Grenada; and St. John's, Antigua all assisted me in my study and can assist any business person interested in data entry operations.

The challenge will be for State and ... Commerce to promote data entry to the



Data and text entry for this paper was prepared by the author on a Macintosh Plus using "MacWrite" and "Ready, Set, Og !" software programs. Printed with an Apple Laserwriter Plus.

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DATA ENTRY OPERATIONS CC	ST BREAKDOWN	I FOR FIVE FIR	MS		
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	1				
	Barbados A	Barbados B	St. Lucia	Dom Rep	USA
DIRECT, LABOR COST	1				
Basic Labor (100 Keystrokers)	34.30%	29.70%	24.20%	20.10%	56.80%
Fringe Benefits	8.20%	2.30%	0.01%	2.00%	17.00%
•••••Subtotal	42.50%	32.00%	24.30%	22.10%	73.80%
MANPOWER OVERHEAD					1
Plant Manager's Salary	3.80%	2.90%	7.30%	8.10%	1.80%
Local Supervisors' Salary	6.70%	7.00%	6.10%	6.70%	8.10%
Fringe [®] Benefits	2.60%	0.06%	0.06%	0.70%	3.00%
Manager's Fringe Benefits	0.02%	0.09%	2.40%	2.70%	0.00%
•••Subtotal	13.12%	10.05%	15.86%	18.20%	12.90%
NON-MANPOWER OVERHEAD					
Building Rent (15,000 sq. ft.)	3.60%	2.60%	8.10%	12.10%	6.70%
Supplies	1.50%	4.50%	3.00%	2.40%	0.70%
Electricity (air conditioning)	2.10%	10.60%	4.20%	5.40%	1.40%
Furniture (100 workstations)	1.70%	5.90%	3.00%	2.70%	0.80%
Equipment Depreciation	19.90%	22.90%	21.00%	7.50%	2.00%
Maintenance and Repair	0.01%	1.50%	3.60%	4.40%	1.30%
Misc travel, legal, etc.	5.90%	2.00%	6.80%	0.90%	0.30%
Freight	8.40%	0.00%	8.60%	9.80%	0.00%
Subtotal	43.11%	50.00%	58.30%	45.20%	13.20%
TELECOMMUNICATIONS COSTS					
Dedicated leased circuits	0.00%	7.20%	0.00%	14.50%	0.00%
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GRAND TOTAL	98.73%	99.25%	98.46%	100.00%	99.90%

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APPENDIX B

All of the Eastern Caribbeah governments welcome data entry investments in their countries. A company incorporated outside of these states can usually register without difficulty by filing a certified copy of its charter, statutes, articles of association or other instrument constituting the company. The usual list of directors, local representatives, and the annual filing of a balance sheet would meet most requirements.

Start up data entry firms, however, would be well advised to investigate assistance from the host government. Local development banks can provide attractive financing packages, tax rebates and holidays, subsidized factory shells, staff training, and a waiver of some import duties.

Any of these benefits require the submission of a business plan. No specific format is required. A basic business plan, however, that any new data entry operation should develop would comprise, as a minimum:

1. A full description of the project giving the what, the how, when, and where of it.

2. Sources and specification of equipment. (Many data entry firms use the Tartan system leased by "Recognition" systems of Dallas.)

3. The markets to be served with projections of annual sales by type of data entry product, e.g. credit cards, medical records, student records.

4. Operating costs, to include rents, wages, salaries, benefits, utilities, telecommunication costs, building rents, and general overhead.

5. Employment to be generated by category (managers, supervisors, proofreaders, skilled and unskilled operators) and an assessment of their availability.

6. Amounts and sources of funds, e.g. owner's contribution, loans, overdrafts, suppliers' credits, etc...

It should be obvious that this is basic information without which no serious investor should make an investment decision.

A potential investor should be prepared to work closely with the local industrial development authority which must be an early point of contact for the new business arrival. It is also a good idea for the investor to check in with the local American Embassy for orientation, a copy of "Current Economic Trends" and the "Investment Climate Report."

Experienced managers go far beyond the above. Anybody with a desktop computer will do financial and operating projections out several years. A business plan is merely the first step.

APPENDIX C ACKNOWLEDGMENTS

Numerous people gave unstintingly of their time to help me with this paper. Janina Slattery, the Department of State's preeminent expert on the Caribbean Basin Initiative, started me off in the right direction and gave me much wise counsel along the way. Ted Johnson and John Klotzbach of the Department of Commerce passed on to me not only the benefit of their long experience in Caribbean afairs, but a foot-high stack of background papers and studies which proved invaluable.

Overseas, Embassy officers Tony Newton in Barbados, Gene Tuttle in Grenada, Eric Sandberg in Antigua; as well as Chargés Bob Beckham in Barbados, Jack Leary in Grenada, and Bob Dubose in Antigua made my schedule possible. By dint of their superb knowledge of local conditions, I was able to cover six islands in two weeks and meet a wide range of local contacts. I visited most of the date entry plants in the region.

Business leaders such as Ken James of Appalachian Computer Services, Peter Kelley of NDL, Norman Bodek of DEMA, and Lynn Bulmer, consultant, all shared with me their experience in data entry work in the Eastern Caribbean. The business world, I found out, is a bit more accessible than government.

At Key West, Florida, Major General Robert F. Milligan, USMC, Commander of US Forces Caribbean, and his staff were kind enough to brief me on the current security situation in the Eastern Caribbean. No short term problems there.

Overseas, government officials of all the Eastern Caribbean states proved unfailingly courteous. The British High Commissioner in Barbados, Kevin Burns CMG, shared with me his views on the Eastern Caribbean at his chancery office in Bridgetown.

The conclusions I have drawn, and the inevitable mistakes, are mine alone.

S.P.Dawkins

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