

**MARKETING STUDY FOR
MARYLAND STATE USE INDUSTRIES**

Prepared by

**Robert C. Grieser
Thomas M. Crawford**

**With assistance from
Henry Beck
Suzanne McMurphy
of the
University City Science Center**

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**Institute for Economic and Policy Studies, Inc.
1018 Duke Street
Alexandria, VA 22314
703/549-7686**

Table of Contents

	<u>Page</u>
Introduction	
Background of the Study	1
The Approach	3
Market Feasibility	4
Economic Feasibility	4
Findings	
Shop Operations Issues	7
Marketing and Sales Issues	8
Quality	9
Design	9
Delivery	9
Price	10
Customer Service	11
New Products for Eight Existing Shops	11
Brush and Carton	11
Sewing	13
Metal I	14
Metal II	16
Paint	17
Tag Plant	19
Mattress	20
Sign	21
Other Shops Which Could Be Expanded	22
New Industries	24
Uniforms	24
Janitorial Products	26
Microfilming	30
Ring Binders	33
Furniture Refinishing	35
Landscaping	38
Other Prospective Industries for Consideration	42
Recommended Locations for New Industries	43
Job Training Potential of New Industries	44
Summary and Conclusions	48

Table of Contents (continued)

Appendices

- A. SUI Staff Contacted During the Study**
- B. Contacts for Marketing Study**
- C. Peer Survey Contacts**
- D. Replication Steps for Marketing Study**
- E. Requirements for New Products**
- F. Prospective Industry Employers**

INTRODUCTION

Background of the Study

The changes in corrections within the past decade have resulted in demands upon prison industries to provide new jobs for inmates and to reduce the cost of incarceration through business-like operations. The reinvigoration of State Use Industries (SUI) in Maryland, with its emphasis on job development, reflects this national trend. Compared to other states' prison industries, Maryland SUI approximates the median in terms of its annual sales (\$7.0 million), number of inmates employed (670), inmate wages (\$4.00 per day), and inmate/staff ratio (12:1). SUI is one of the leaders, however, in emphasizing real world job preparation through the development of certified apprentice programs for many of its industry jobs.

The expansion of prison industries to provide new jobs has led to increased concern for new products and services. This entails development of new industries, development of new product lines for existing industries, and greater penetration of existing markets. In order to assist them in meeting these expansion needs, the Maryland SUI contracted with the Institute for Economic and Policy Studies to conduct a marketing study which focuses on two general requirements. The study called for:

1. identification of one new product line for eight existing industries, with a minimum market potential of \$10,000 each. These included:
 1. Brush and Carton
 2. Sewing
 3. Metal I (furniture)
 4. Metal II (includes upholstery)
 5. Paint
 6. Sewing
 7. Tag
 8. Sign
2. identification of two new industries that employ 35 inmates each, generate at least \$100,000 in sales, and meet the accompanying

specifications for economic feasibility (i.e., 5-year return on investment).

Three explicit limitations were placed on the study recommendations. First, direct costs must comprise no more than 75 percent of the sale price; second, the market for any proposed new industry must be no less than \$100,000; and third, the market for these new products or product lines must be an authorized market under Maryland law. Excluded from the study were currently existing SUI industries, industries raising security concerns (e.g., X-ray machine and two-way radio industries), and specified industries already in SUI's expansion plans (data processing and modular office partitions).

The IEPS study approach recommended modification of two aspects of the contract RFP. First, the RFP stated that "two" industries were to be recommended, each employing a minimum of 35 inmates and each having a sales volume of over \$100,000. Our proposal stated that an industry employing 35 inmates will need a sales volume closer to \$350,000. This is based on the existing productivity level of SUI inmate workers, which approximates \$10,000/inmate. Thus, in order to employ 35 inmates, two or three industries may be recommended instead of one with each having a sales volume of around \$100,000.

The second modification to the RFP specification concerned the requirement of a 3-year return on investment. Our recent Pennsylvania study found few industries in which the return on investment could occur faster than the predicted equipment depreciation rate, which was no less than 5 years and as high as 10 years. Since few private businesses count on a 5-year return on investment, we recommended that a 5-year return is a more appropriate expectation.

The following sections of this report outline the approach employed in conducting the study, the detailed findings, and study recommendations. Where appropriate, the comments and observations of SUI customers and other persons' contacted during the study have been integrated into the study findings.

The Approach

In overview, the study methodology called for the following tasks:

- 1. Targeting of potential new industries and products through review of IEPS database, meeting with SUI staff, and inspection of SUI plants. Appendix A contains a list of SUI staff contacted during the study.**
- 2. Market survey to determine potential customer interests and to generate additional industries or product proposals. The market research included a review of state purchasing records as well as telephone interviews with key state and local officials. Among these were present and potential SUI customers. Appendix B contains a list of state and local officials contacted in the marketing survey.**
- 3. Determination of operational requirements for new industries through a peer survey of other states' prison industry programs to gather information on similar operations. The information gathered through the peer survey included personnel, equipment, space, utilities, raw materials, production requirements, and related costs for start-up and operating of recommended new industries. Data collected through the peer survey was supplemented by library and commercial sources. The Institute subcontracted with the University City Science Center to conduct this aspect of the study. A listing of peer survey contracts is contained in Appendix C.**
- 4. Review of relevant labor market information detailing the employment potential with the Maryland labor market for jobs with the recommended new industries (Because of Maryland's interest in inmate apprenticeship programs, additional information on apprenticeship opportunities was also sought.);**
- 5. The final step was the integration of the above information for report presentation to SUI.**

Both the marketing survey of SUI customers and the peer survey of other states' industry programs to gather production and cost information were core to the study effort. Steps for replicating this marketing study are outlined in greater detail in Appendix D.

Market Feasibility

Our search for new industries took several factors into account. First, on the manufacturing side, we attempted to focus on consumable items rather than durable goods, since the latter runs the risk of market saturation. Second, wherever possible, an attempt was made to focus on services and service-based manufacturing industries since these operations offer the greatest potential for inmate jobs upon release. (See discussion below of job training potential for more details.) However, realities sometimes dictate that new industries provide a mix between service and traditional manufacturing industries. Industrial operations must provide employment for inmates at all security levels, and many of the service industries are more appropriate for minimum security. Moreover it is sometimes difficult to identify a sufficient number of minimum security inmates to staff service industries due to the greater proportion of lifers and long-term offenders in the system today.

Third, in seeking out new industry markets, we attempted wherever possible to identify primary buyers. Finally, from a market perspective, it is more problematic to get a fixed measure of the market size in the service area. Services must be negotiated on a case basis rather than placed on a standard contract as manufactured items are. Thus services can be a more risky venture when initiating a totally new operation. The approach of gradually increasing existing service operations to expand into new areas may be likely to be more effective in reaching this market.

Economic Feasibility

Product, operational and economic viability data are presented for each recommended new product/industry. The economic operating cost data are

derived from a review of other states' industry profit and loss statements, responses to survey questions, and from available published information on private sector operations. Additionally, a planning study done for SUI in 1983 by the Wald company was also used as a source document. The following information is identified and described for each recommended industry:

- start-up costs of establishing each new industry
- space, structural, and utility requirements
- inmate and civilian manpower needs
- raw materials
- all major equipment required and associated costs
- product sales potential
- projected return on investment

(Note: Where necessary, the equipment cost index compiled by Marshall and Swift (See Chemical Engineering, June 1985) was applied to yield estimates in current dollars. Inmate labor costs are estimated at \$1,000 per year per inmate; civilian staff wages are estimated at \$30,000 per annum including fringe.)

The economic feasibility of new prison industries must consider both the capital and operating costs for their start-up and the potential return on investment for the sale of industries products. Operating profit and loss as calculated herein is the difference between sales income and operating costs including raw materials, labor, supplies, and shop overhead costs including utilities and a depreciation allowance on capital equipment. A straight line depreciation method is used in the calculations. This is based on the expected life of the relevant equipment, which is typically 10 years.

Return on investment is the ratio of any annual operating profit to the capital investment in the industries shop. Based on our experience with other states as well as private sector expectations, a 5-year return on investment is generally accepted and has been used here in our calculations. The

interest value on the cost of the capital investment has been excluded from the calculation. Given present interest rates, the payoff time would nearly double from the five years used below to ten years if interest costs were included. Also excluded from the calculation of both operating profit and return on investment are the costs of product warehousing, marketing, central office overhead, and construction of additional shop facilities. These have been excluded consistent with SUI's current financial structure in determining gross profit and loss.

In the final analysis, the economic feasibility of a particular industry may depend as much on related managerial factors which we have tried to identify wherever appropriate. These include well trained shop supervisors, an incentive system for inmates tied to productivity, a business-like environment, effective monitoring of shop performance, and an aggressive approach to marketing and sales. Such factors are often the overriding contributor to whether a shop meets its production goals and hence yields an operating profit.

Finally, it should be noted that the recommendations made are based on current information and priorities. Prison industries, as much as any area of corrections, must often respond to conditions of crowding, changing legislation, court actions, and other factors which can have a profound affect on the industries program. Thus the data and rationale supporting each recommendation are provided along with information sources to enable SUI managers to reassess their options if necessitated by issues that may arise.

FINDINGS

The study findings are broken down into several key areas which correspond with the general approach to the study. These areas are (1) an overview of current shops identified in the RFP; (2) general issues related to marketing and sales; (3) recommended new products in existing shops; and (4) recommended new industries. The new industry recommendations are followed by proposed facility locations for the industries. Also included is a discussion of each industry's potential to equip inmates with marketable job skills.

Shop Operations Issues

In compliance with the RFP requirements, eight of SUI's existing shops were examined in order to determine their potential for expansion into new products or product lines. During the course of the study, research staff visited the eight shops including

<u>Shop</u>	<u>Location</u>
1. Brush and Carton	MCI-Hagerstown
2. Sewing	MCI-Women's (Jessup)
3. Metal I	MCI-Hagerstown
4. Metal II (includes upholstery)	MCI-Hagerstown
5. Paint	MHOC (Jessup)
6. Mattress	MHOC (Jessup)
7. Tag	MHOC (Jessup)
8. Sign	MHOC (Jessup)

The meat processing plant at the Hagerstown location was also visited. SUI operates several other shops at the Baltimore facility, but these were not under consideration as part of the study.

When compared to other states' industry operations previously observed by IEPS, our overall assessment of the existing SUI shops visited showed the plant operations to be in relatively good shape. Shop personnel all have backgrounds in the technical area in which they are employed. The number of

staff is adequate in relation to the number of inmates employed in the shops, but the addition of relief help would probably strengthen the existing staff complement at both locations. Virtually all staff appeared to work well with inmates, assuring necessary control in the work setting. A strong emphasis and sense of pride emerged on the production of quality goods. With the possible exception of the tag plant, the shop operations at Hagerstown all appeared to be better run than those at Jessup.

The number of inmates employed appeared adequate given the production levels required at each shop. There was not an excess of inmate positions per se, but a number of shops were operating at less than full capacity, resulting in some idleness. Tag, meat, and metal I were operating at close to full capacity at the time of our visit. The apprentice program appears to be a significant factor in identifying and maintaining a motivated inmate workforce. Equipment was in good repair, and the major problem encountered in the shops was lack of sufficient space for storage of raw materials and finished goods. Space was especially a problem at the upholstery and sign shops. With the exception of perhaps the mattress plant, raw material waste also appeared to be quite low. In summary, there are few if any operations issues to limit SUI's capacity to implement our recommendations.

Marketing and Sales Issues

There are a number of critical factors that cannot be overlooked in the conduct of any marketing study. Among these are price, quality, design, and delivery of products, as well as customer service for the buyers and consumers of the products and services provided. Since these factors are so important to the recommendations outlined in this report, we are addressing them on the basis of their overall relevance to SUI, with no special emphasis as to how

they may affect a particular product or industry. If we were to summarize the data collected through interviewing the many participants in our study (primarily buyers of SUI products), the five key factors listed above would fall along a continuum in the following way.

Quality -- Design -- Delivery -- Price -- Customer Service

(1 = High Rating

5 - Low Rating)

Each of these factors merits separate discussion.

Quality

The quality of products was generally rated high with one consistent exception--paint. Unfortunately, a number of customers have experienced problems with SUI manufactured paint. This may have led in some cases to a jaded view of SUI's other products and services. While it is clear that in many cases, the problem may be improper application by customers, SUI should consider assigning someone on a regular basis to investigate the peeling problems cited, and to provide customer service as required.

Design

The design of the products generally received a positive reaction from survey respondents. It was noted that SUI takes the initiative to keep abreast of modern design wherever possible. While some customers had specific complaints about particular items, overall comments on design were favorable.

Delivery

Satisfaction with delivery was mixed. While a number of respondents complained about excessive delivery time, it was also recognized that vast improvements have been made over the past three years in this regard. It is our understanding that delivery of most stock items can be accomplished within

90 days at the outside. In defense of SUI, the contractor recognizes that delivery is an area in which it is extremely difficult to keep customers happy. Most customers want their purchase orders filled "yesterday." It is our experience with other states' industry programs that delivery is often cited as one of the major problems plaguing prison industry. It should be noted, however, that excessive delivery problems can often lead to the loss of future business.

Price

While price does not appear to be a major problem among present state customers, a number of respondents noted that SUI prices are at the high range for comparable goods. This may not be too problematic with SUI's current focus on state customers under state contracts. However, high pricing may seriously inhibit SUI's penetration into local county government markets for expansion of SUI's present goods and services. Since expansion into local markets is a key element to several of the prescribed industries and products (especially schools and hospitals), it is recommended that SUI conduct a complete review of its current pricing structure to insure that it can compete at the local market level.

The whole area of competition is one worthy of some discussion. Since SUI currently sells most of its products to state agencies on state contract, they have in effect a captured marketplace. In order to compete at the local level, not only pricing but other factors discussed herein (delivery, quality, and design) should all be carefully examined to determine if SUI can effectively compete in the local marketplace. Assuming all other factors are equal (i.e., quality meets certain prescribed specifications), low price is generally the determining factor for purchasing at the local level.

Customer Service

Customer service received consistently low ratings from both present and potential customers. Current customers had specific complaints, while prospective buyers (primarily county purchasing) noted that they had not received any literature or catalogues from SUI. Buyers consistently expressed the desire for more contact from sales and customer service personnel, even when no apparent problems existed. As one purchasing agent commented, "They are supposed to contact us, not the other way around." Clearly, due to a lack of resources or other reasons, the existing SUI sales personnel do not get into the field often enough to maintain sufficient customer contact. From the comments received in the course of the telephone survey, it appears that at a minimum MD SUI could use two additional fulltime sales persons.

New Products for Eight Existing Shops

The following section provides recommendations for an additional product line for eight existing shops along with a discussion of the market for each respective product. Relevant production and economic data have been included in Appendix E for those operations requiring notable expansion in order to accommodate the recommended product additions (i.e., lunch meats, janitorial waxes, file cabinets, straw brooms, and sign refinishing).

Brush and Carton

Shop Overview. The brush and carton shop is a small operation which employs one supervisor and seven inmates. The sales volume during the past year was around \$120,000. The primary products are brooms, brushes, and corrugated cartons. At the time of our visit, two observations were worthy of note. The shop was kept immaculately clean and inmates took a noticeable

sense of pride in their work. SUI is in the process of obtaining equipment that will enable them to produce archive file boxes and other die cut boxes.

Market Determination. Meeting the RFP criteria of \$10,000 in annual sales, we recommend that straw broom production be added to the brush and carton operation. Although the purchasing data for FY 1985 shows the state-use market for straw brooms to be just under \$10,000, our telephone survey of prospective buyers indicates a sizable untapped market in local schools and hospitals. In addition, correctional facilities and other state institutions represent potential buyers for this product. The city of Baltimore Purchasing Department bought approximately 15,000 straw brooms last year. Our review of purchasing records shows other buyers of straw brooms include Rosewood Center, Springfield Hospital, and the Department of Natural Resources. While there is no one large buyer at the state or local level, there appear to be numerous buyers of small quantities of straw brooms which will provide a sufficient market in the aggregate. According to the purchasing records, the average buyer orders several dozen brooms at one time at approximately \$40-50 per case.

The following agencies expressed interest in straw brooms in our survey:

Baltimore County Purchasing
Prince George's County Purchasing
Anne Arundel County School Board
Anne Arundel County Purchasing
Baltimore City Public Schools
Montgomery County Purchasing

Other Products. Another product considered was the manufacture of wet mops. While the market for wet mops is apparently larger than for straw brooms (\$42,200 and \$67,700 in FY 1984 and FY 1985), there are a few problems regarding this product. First, there may be more production difficulties. In

addition, Blind Industries of Maryland currently manufactures mops, potentially leading to a conflict.

Sewing

Shop Overview. The sewing shop employs 40 women and two supervisors and has an annual sales volume of approximately \$250,000. A variety of clothing, including shirts and hospital clothing is produced, as are most of the flags purchased in the state. Maryland is about to institute inmate uniforms and the sewing shop will in all likelihood produce these uniforms. The shop does not currently produce any denim goods, but the addition of inmate uniforms and a related denim product line represents a huge market that will significantly increase production. Clothing lines are a bit old-fashioned in design and are presently being examined for updating to more modern appearance.

Market Determination. There are a number of additional products which can be added to this shop's production schedule. Of those examined in the study, it is recommended that both blankets and surgical scrubs be added to the sewing shop product lines. The former represents a substantial market. State purchasing records show the market size for cotton and wool blankets to be consistently close to \$100,000. Blanket purchases for fiscal years 1984 and 1985 were \$92,800 and \$95,600, respectively. Our telephone survey revealed that the primary interest in this product would be for cotton hospital blankets. The University of Maryland Hospital spent \$30,000 on blanket purchases. Montgomery County Holy Cross purchased approximately 2,900 blankets, and Montgomery County General about 500.

While the surgical scrub shirt does not in itself represent a substantial market, it is recommended that this line be added to production for two reasons. The sewing shop is currently manufacturing a variety of shirts, and

the scrub shirts could be added with little disruption. Additionally they represent another new product to market to hospitals, which may aid in the sale of blankets, straw brooms, and other new products. According to state purchasing records, the reported market for surgical scrubs and disposable clothing was \$10,200 in FY 1985 and \$8,400 in FY 1984. Agencies expressing interest in surgical scrubs include Pring George's County Hospital, Holy Cross Hospital, and the University of Maryland Hospital at Baltimore.

Other Products. Other potential products include work clothes (trousers, overalls), work gloves, and rainwear. The market for work clothes alone is quite large (\$77,500 and \$156,900 in FY 1984 and FY 1985). However, a substantial portion of this market is filled by Blind Industries, and thus may create a conflict with State Use. The work gloves market is much smaller, with GSA sales in FY 1984 and 1985 recorded at \$2,300 and \$5,800, respectively. The market for rainwear and related clothing is fairly substantial at just over \$40,000 for each of the last two years. This line also merits consideration in future expansion plans for the sewing operation. A sizable market for a new product line is sheets and pillow cases (\$78,000 in FY 85). Due to the high cost of raw materials however, it may be difficult for SUI to compete with the large volume of imports.

Metal I

Shop Overview. Products manufactured in the metal I shop include cabinets, shelves, beds, and waste receptacles. Production was not at full capacity at the time of our visit. Approximately 30 inmates are employed in metal I. One point worthy of note is that this shop was mixing its own paint because the paint plant at Jessup was unable to provide the quality paint they

needed. This problem should be examined to determine if the situation can be remedied.

Market Determination. We recommend that the manufacture of file cabinets and storage lockers be added as new product lines to the metal I shop.

Clearly these two products represent one of the largest untapped markets in the state-use sales. Purchases of file cabinets and lockers for the past two years were as follows:

<u>Item</u>	<u>FY 84</u>	<u>FY 85</u>
File Cabinets	\$202,400	\$231,000
Lockers	\$ 29,000	\$ 38,700

Our telephone survey revealed that the University of Maryland purchases approximately 150-200 file cabinets a year (4-drawer letter size), Prince George's County expended \$70,000 last year for new cabinets and for repair of old ones, and Anne Arundel County ordered about 300 last year. The District Court of Maryland also suggested manufacture of an optimedia cabinet for storing computer data. Moreover, schools could represent a major buyer of student lockers. While this market is a significant one, there are a number of issues that must be taken into account when pursuing it. The state does not currently have a single specification for purchase of file cabinets under contract. At least one person surveyed noted the complexity of manufacturing a quality file cabinet, expressing reservations about SUI entering into this area. Our experience with the problems of prison industries in other states which produce file cabinets testifies to the complexity of this product. An SUI representative may want to contact another state's industry program where file cabinets are successfully produced to acquire their plans.

Other Products. Other products that could be considered for further expansion include library book trucks and drafting files. Each of these items

however represents a substantially smaller market than do files cabinets and lockers. The purchasing records show the market size for these two products is as follows:

<u>Item</u>	<u>FY 1984</u>	
Library Book Trucks	\$17,000	\$13,400
Drafting Files	\$ 9,600	\$38,900

The market for drafting files may have been inflated by a one time purchase during the past fiscal year. Library trucks, while not an item in great demand, may be worth consideration since SUI has just begun manufacturing dollies which can serve as the base for the library truck.

Finally, another large market for the metal shop are sign posts and delineator posts for mile markers. At present however, SUI does not have the capability to work with galvanized steel required by the state Highway Department. The market for highway sign posts alone was \$368,000 in FY 1985, while steel U-posts represented \$240,000. Sixty five thousand dollars worth of flexible posts for delineator markers were bought for use on Maryland's state highways. Manufacture of the latter may also merit further consideration.

Metal II (Includes Upholstery)

Shop Overview. The primary product manufactured in the metal II shop is an assortment of chairs (both swivel and stacking) for general office use. The shop employs about 40 inmates, but is reportedly operating at about 60% of capacity. The building which houses the metal II shop is an old cannery. Thus maximum space usage is hindered by original design features such as large drain gulleys.

The upholstery shop, also part of metal II, is housed in a separate building adjacent to the metal shop. This shop upholsters chairs manufactured

by SUI (both metal and wood) at both the Baltimore and Hagerstown locations. Like a number of other shops, the operation was noticeably cramped for space. About 35 inmates are employed by the upholstery operation.

Market Determination. It is our recommendation that metal folding chairs be added as a new product line to the metal II shop. State purchasing records indicate the market size for folding chairs and tables (the latter are already being produced by SUI), was \$32,700 in 1984 and \$18,200 in FY 1985. Moreover, data collected in the telephone survey shows schools and universities represent a sizable market for this item. Montgomery County Public Schools bought 2,000 chairs this year @ \$6.64 each. Anne Arundel County expressed interest, and Morgan State University buys this item in large quantity. Another potential market source, that was not explored due to the time and resource limitations of our study, is churches. Churches typically use folding chairs on a regular basis for meetings and other community functions.

Other Products. Other potential additions explored included dust pans (\$6,400 in sales for FY 85) and mop buckets (\$15,100 sales volume). Two other products, for which purchasing data was not available, were security screens for police and correctional vehicles, and wire litter baskets for attaching to urban lamp posts. The MD State Police expressed interest in the former (UNICOR FED PI provides them with these screens at present); yet we were unable to contact individual county sheriffs about this product. The state Parks Service as well as one of the universities expressed an interest in the wire baskets.

Paint

Shop Overview. The paint plant manufactures latex and enamel paints, as well as traffic paint and varnishes. Annual sales for FY 1984 were

approximately \$600,000. The shop employs about 20 inmates, but production has been low since SUI lost a major prior year contract to produce all of the traffic paint for the State Highway Department. This contract alone called for 150,000 gallons of paint and represented nearly \$1 million in sales. The key factor in the decision was reportedly paint drying time. The paint plant has experienced some staff turnover and was short staffed at the time of our visit.

Market Determination. The primary finding on new products for the paint plant was production of janitorial waxes. Although purchasing records reveal only a small market in janitorial floor waxes, the responses from our telephone survey indicate there is a substantial market at the local level for this product line. The PG County School Board spent \$50,000 last year on waxes. Montgomery County public schools bought 16,000 5-gallon drums, and a great many agencies reported buying a minimum of 600 gallons a year. The list of agencies expressing interest in this product is comprised primarily of schools and hospitals and includes the following:

Baltimore County Central Purchasing
Prince Geogre's County Purchasing
Baltimore City Public Schools
Department of Education, Central Administration
Department of Health and Mental Hygiene
Prince George's County Hospital
Holy Cross Hospital
Anne Arundel Purchasing Department
Baltimore City Purchasing

Two qualifying points must be made in conjunction with this recommendation. First, since the primary markets for floor waxes are at the local level, SUI must be prepared to bid competitively for these purchasing contracts. While a number of agencies were interested in SUI as a potential supplier, several persons were also quick to point out that these products

must undergo stringent tests for quality prior to granting an award for a successful bid. Like janitorial products (discussed below as a new industry), SUI must insure they have personnel with the chemical expertise required before undertaking manufacture of these products.

Second, it is apparent from the comments of a number of customers that the paint plant may be experiencing some quality control problems, i.e., reports of peeling paint. As mentioned earlier, this may in part be due to the lack of adequate customer preparation. We recommend however that quality problems be thoroughly explored in an attempt to resolve customer concerns prior to adding a janitorial wax product line.

Other Products. Other products that merit consideration as future additions to the paint plant include marine paints (\$19,400 in FY 84 sales), turpentine (\$38,000), and pine disinfectant (\$11,700). The dollar volume for turpentine also includes paint thinner which is already manufactured by SUI. Another possibility is production of epoxy paint for floor covering for use by Metro and hospitals, but we were unable to determine the size of this market. The market for epoxy-based coatings for masonry was under \$10,000 last year.

Tao Plant

Shop Overview. The tag plant is a large scale operation which employs over 50 inmates. Its annual sales are in excess of \$1 million. With the state gearing up for the manufacture of a new general issue tag, the plant was at full production and has recently added a second shift. The Maryland tag plant has some of the most modern equipment of any state tag operation nationwide. The scope and apparent well-managed nature of this operation was quite impressive, with little sign of idleness.

Market Determination. Unfortunately after a complete investigation of potential new products for both in and out of state market consumption, we do not have a particular item that would meet the \$10,000 RFP sales specification with any certainty. There are several possibilities that warrant further investigation, however. The tag plant has the equipment capabilities to stamp out a number of small metal products. For example, it was suggested that Maryland could produce and sell the tag blanks to other state tag plants which buy the blanks in that form. Our contacts with other state industries however indicate that this is not viable, since most East Coast tag operations are large enough to produce their own blanks. One state, however, reported producing tags for a third world country; a possible market for Maryland if a buyer could be found.

A second potential product involves stamping out electronic parts, possibly for a private contractor. Again the difficulty becomes identifying a prospective buyer. A third possibility which represents only a small market is stamping out metal letters and numbers for use on state office buildings and similar structures. Finally, the tag shop could produce rider tags for identification use by local fire departments, public safety, and related county service vehicles. Little interest in this was generated however in the telephone survey of county officials.

Mattress

Shop Overview. The mattress plant is a small operation, employing one supervisor and 10 inmates. The plant produces vonar, boric acid, and neoprene mattresses and pillows. Annual sales are approximately \$275,000. During our visit, a new supervisor had just been hired who was unfamiliar with the operation. Many of the problems associated with the traditional prison

industry operation were evident in the mattress plant; production was slow, sanitation was poor, and evidence of waste was high.

Market Determination. We recommend that the mattress plant initiate the manufacture of waterproof mattresses and chair cushions. While state purchasing records reflect only limited purchases in this area (e.g., Western Maryland Center bought one dozen patient proof mattresses @ \$90.00), our telephone survey indicates substantial interest in these products on the part of hospitals and universities around the state. The following agencies expressed an interest in this line of products:

Prince George's County Hospital
Holy Cross Hospital
Howard County Purchasing Department
Morgan State University
Department of Health and Mental Hygiene
University of Maryland, Baltimore

The waterproof cushions should complement SUI's current line of plastic rotocast furniture.

Sign Shop

Shop Overview. This is another small operation that operates adjacent to the tag shop and employs about six inmates. The shop produces street signs and other custom metal signs, amounting to approximately \$100,000 in sales. Production methods are limited by available equipment, and space is at a premium

Market Determination. We recommend that a refurbishing component be added to the current sign operation in order to increase present sales by at least \$10,000. From our survey of localities around the state, it is apparent that the market for new sign customers is not significant; even the smaller cities and counties have their own sign shop. The only localities expressing

interest in buying signs were the cities of Rockville (handicapped signs) and Salisbury, and Wicomico County. Moreover, the state highway administration produces in-house all road signs for major state highways. Several agencies did however express an interest in having SUI refinish their old signs. These agencies included:

Anne Arundel County
Department of Transportation (Port Authority)
Howard County Purchasing Department
Prince George's County Purchasing
Department of Natural Resources

Anne Arundel County specifically indicated that they replace approximately 300 signs a month, due to damage from vandalism and weathering.

Other Shoos Which Can Be Expanded

Meat Processing. We recommend that the meat processing plant be expanded to include sausage and lunch meats. All combined orders for meats consumed by the state last year (fresh, cured, and frozen) represent one of the largest categories of purchases made by the state last year--in excess of \$1.6 million. SUI presently operates an impressive meat operation primarily processing ground beef products. This industry has proven to be a lucrative one that has a sizable market on a regular basis. All of the institutions in the state, including correctional facilities, training schools, rehabilitation centers, and state and county hospitals provide a continuous source of orders. A one month sample of state purchasing records for two institutions alone showed the following:

Inst. A: 3,000 lbs. bologna @ \$.46 per lb.
 600 lbs. lunch meat @ \$.89
 2,000 lbs. salami @ \$.63
 2,400 lbs. turkey ham @ \$1.00
 1,200 lbs. link sausage @ \$1.22

Inst. B: 378 lbs. lunch meat @ \$1.01 per lb.
500 lbs. bologna @ \$.93
100 lbs. meat product loaf @ \$1.63
120 lbs. pickle & pimento @ \$1.21
50 lbs. pepper loaf @ \$1.29
600 lbs. turkey roll @ \$.84

A quick calculation of these orders for luncheon meats and sausage shows a monthly sales volume of \$8,762 or annualized sales in excess of \$100,000 for the two institutions. Thus SUI should continue to expand its meat processing operation in order to build on its present success in this area.

Print Shop. While the print operation was not part of this RFP, our examination of state purchasing records showed a market of over \$5 million worth of business. This did not include envelopes which represent another \$600,000 in sales. Envelope production is a market which SUI is planning to enter. The volume of the printing business would indicate that SUI could probably take on a greater share of this business as well. Current sales of the print shop are approximately \$400,000.

Wood Shop. The wood shop is another operation that was not formally included in the study. Again, however, in our review of purchasing records, two potential product additions were discovered. Wooden lounge furniture sales totaled \$97,000 last year and picnic tables amounted to \$27,000 in sales. Both of these items can be considered as potential expansion items.

Warehousing Services. Another potential service industry that came to our attention involves employing inmates in state-operated (GSA) warehouses. We were told by the Director of Services that the state operates numerous warehouses in which at least 30 inmates could be employed in jobs as laborers and inventory clerks. This area represents another operation which SUI could potentially expand into through its present labor services operations.

New Industries

Uniforms

We recommend that an industrial program be set up exclusively for the manufacture of wool and cotton uniforms. The market size for guard, service, and band uniforms in the state is as follows:

<u>Type</u>	<u>FY 1984</u>	<u>FY 1985</u>
Cotton	\$ 68,300	\$ 49,500
Wool	\$451,300	\$682,300

Additionally, there is a market for hospital uniforms (both professional and patient) of approximately \$15,000 per year. Clearly, the potential of the uniform business is quite large, enabling the employment of 30-40 inmates. The primary focus of this industry would be uniforms for state correctional officers and state police. Additionally, SUI could make uniforms for jail officers. At the local level, Prince George's County reported spending \$100,000 a year on uniforms for its public safety employees. Baltimore County spends \$90,000 a year for uniforms for police and fire officials as well as outdoor workers. Howard County purchases \$50,000 of uniforms annually. Other prospective markets identified include the Vehicle Administration of the Department of Transportation, Mntgomery County, and the City of Rockville.

The critical issues in starting a uniform plant are clearly design and quality control. In order to be accepted, uniforms must meet rigid standards. The buyer for the state police reiterated this point while expressing interest in SUI fulfilling their needs. Finally, a number of agencies rent or buy their uniforms with a cleaning service written into the contract. While it was requested that laundry as a prospective industry per se not be included in the study, we recommend that SUI examine the possibilities of a joint uniform and laundry cleaning service venture.

Exhibit 1
Requirements for Uniforms

Industry

Building	= \$600,000	Personnel:	
Equipment (operating)	= 100,000	Civilian	3
Auxiliary Equipment (Chairs, Files, etc.)	= 10,000	Inmates	35
Inventory	= <u>20,000</u>		
Total Est. Start-Up Cost (Excludes facility)	\$130,000		

Physical Aspects

Area: 20,000 sq.ft.
 Floors: 1
 Construction: Masonry
 Height of Ceiling: 10 ft.
 HVAC: Normal
 Utilities: Electric 110/220
 Steam - Hot Water

Equipment

50 Sewing Machines (\$1,600)	= \$80,000
3 Buttonholers (\$2,800)	= 8,400
3 Slitters (\$600)	= 1,800
1 Ironer	= 5,000
3 Button Sewers (\$700)	= <u>2,100</u>
Total	\$100,000

Market

Target: \$350,000 per year
 Area: Institutional guards, agencies, institutions, hospitals

Five Year Return on Investment

Civilian staff	\$ 90,000
Inmates	35,000
Raw materials & operating supplies	20,000
Utilities	9,400
Depreciation	<u>11,000</u>
Total	\$165,400
Annual Sales Required	\$187,400

Janitorial Products

We recommend that SUI establish a janitorial products industry. The market for soaps, cleaners, and laundry supplies is substantial at both the state and local levels. Moreover, janitorial products are a consumable item insuring a continuous need to supply these items. The items found to have the largest market were the following:

<u>Item</u>	<u>FY 1984</u>	<u>FY 1985</u>
Powder Cleaner	\$ 34,900	\$ 86,800
Laundry soap (bar, chip, flake, and granular)	80,500	80,400
Germicidal laundry soap (bar, chip, flake, & granular)	76,400	73,900
Laundry detergent (synthetic)	105,900	79,800
Liquid cleaner	32,100	32,900
Hand soap (bar, liquid, & powder)	12,400	9,000
Oil absorbent (granular or powder)	6,300	37,500

In addition to hospital and correctional facility use, schools represent a significant market for janitorial products at the local level. Montgomery County Public Schools reported buying approximately 43,000 3-oz. bars of soap @ .14 per bar, and five 50-lb. cases of Borax. Holy Cross Hospital in Montgomery County estimated its purchase of soaps to range from \$30,000 to \$50,000 annually. The following agencies in our telephone survey expressed an interest in SUI providing them with janitorial products:

**Baltimore County Central Service Purchasing
Prince George's County Purchasing Department
Anne Arundel County School Board
Baltimore City Public Schools
Prince George's County School Board
Department of Education, Central Administration
Department of Health and Mental Hygiene
Prince George's County Hospital
Anne Arundel County Purchasing Department
City of Baltimore Purchasing Department**

Several points related to the janitorial product market should be noted here. A number of agencies reported buying their janitorial products in a complete package on contract which includes janitorial waxes. Thus producing a diversity of products would be beneficial. Yet it must be reiterated that the chemical mixtures for these products are complex and require careful attention be paid to the quality of the products. A number of state prison industries have experienced problems with their janitorial supply programs due to poor quality.

It should also be noted that Blind Industries of Maryland currently has the contract for mixing liquid soap. Thus SUI may want to limit their involvement in this area to repackaging or the production of concentrate.

Exhibit 2
Requirements for Janitorial Products (non-wax)

Industry

Building	= \$135,000	Personnel:	
Equipment (operating)	= 210,000	Civilian	1
Auxiliary Equipment (Chairs, Files, etc.)	= 5,000	Inmate	12
Inventory	= <u>10,000</u>		
 Total Est. Start-Up Cost (Excludes facility)	 \$225,000		

Physical Aspects

Area: Production, 3,000 sq.ft.
Storage, 1,500 sq.ft.
Floors: 2
Height of Ceiling: 15-18 ft.
HVAC: Hot/cold water; low
pressure steam
Utilities: Electric 110/220

Equipment

Cake machine	}	\$180,000*
Coolers		
Liquid filling/packaging		
Dry Mixing & Blending		
Equipment (bins, scales, blender, filling machine)	= 25,000	
Relocation Costs	= <u>5,000</u>	
 Total		 \$210,000

Market

Target: \$200/250,000 per year
Area: State agencies, institutions, schools
Capacity: 200,000 lbs. detergent per year

Five-Year Return on Investment

Civilian staff	\$30,000
Inmates	12,000
Raw materials & supplies	10,000
Utilities	4,400
Depreciation	<u>21,500</u>
Total	\$77,900
 Annual Sales Required	 \$120,900

Comments

* Detailed list is provided on following page.

Soaps: Liquid (some of this equipment may be available from the paint shop.)

- 100 gal. jacketed (2)
- 170 gal. jacketed
- 560 gal.

Mixers (3)

Filling Machine

Pumps

Bar Soap

Cutter

Former/frame/dies

Conveyor

Auxiliary Equipment

Dust Collector

Motors

Platforms

Electrical

Microfilm Processing

We recommend that SUI establish a microfilm processing industry. State purchasing records indicate the following expenditures for microfilm microfilming equipment, and supplies.

<u>Item</u>	<u>FY 1984</u>	<u>FY 1985</u>
Raw microfilm & microfilm processing	\$51,100	\$63,200
Microfilm prints	21,800	10,200
Microfilm supplies	4,100	23,300
Cameras & accessories	63,100	99,400
Readers and printers	139,500	159,600
Commodities unclassified	255,800	114,300

The data demonstrates that while the actual market for processing may appear small, it is clear that a number of state agencies are beginning to purchase the supplies and equipment which enable them to do their own processing. With increasing demands on already limited space for storage in state and county offices, the demand for microfilming services is clearly on the rise. Thus the market opportunity presented for the microfilming industry is one that should be taken advantage of immediately, since the marketing picture may change as agencies develop their own in-house capabilities.

The State Department of Licensing and Regulation has a major need for microfilming and is looking for a supplier of this service. Montgomery County General Hospital does about \$50,000 worth of microfilming each year. Holy Cross Hospital, also in Montgomery County, reports that over \$100,000 in microfilming is performed every year. The City of Baltimore Purchasing Dept. noted a pressing need for this service and has already inquired as to whether SUI could meet their need. The State Department of Education does about \$50,000 in microfilming each year. A number of other agencies contacted reported contracting out anywhere from \$2,000 to \$10,000 in microfilming work

each year. Other agencies expressing an interest in SUI providing this service include:

Howard County Purchasing Department
Morgan State University
Baltimore County Central Service Purchasing
Department of Budget and Fiscal Planning
Montgomery County Public Schools
Department of Health and Mental Hygiene
Towson State University
Prince George's County Hospital
University of Maryland, Baltimore
University of Maryland, College Park
Montgomery County Purchasing Department

The state's Records Management Division in GSA (they do \$400,000 in business per year) and the Howard County Sheltered Workshop for the Handicapped now perform microfilming services. However, the former contracts out its source documents (approximately \$100,000 per year). They reportedly pay around \$17.50 per 1,000 frames and informed us that they cannot handle all of the requests they receive. The key constraint that must be addressed in setting up the microfilm operation is concern expressed by some agency persons (State Archives and Judiciary) about the confidentiality of records issue.

Exhibit 3
Requirements for Microfilm/Micrographics

Industry

Building	= \$60,000	Personnel:	
Equipment (operating)	= 60,000	Civilian	1
Auxiliary Equipment (Chairs, Files, etc.)	= 1,000	Inmates	8
Inventory	= <u>4,000</u>		
 Total Est. Start-Up Cost (Excludes facility)	 \$65,000		

Physical Aspects

Equipment

Area (incl. storage) 2,000 sq.ft.	3 Readers (\$2,200)	= \$ 6,600
Floors: 1	2 Loaders (\$1,900)	= 3,800
Construction: Masonry	1 Page Searcher	= 8,700
Height of Ceiling: 10 ft.	4 User Readers (\$225)	= 900
HVAC: Normal	2 Document Cameras (\$7,200)	= 14,400
Utilities: Electric 110/220	1 Special Camera	= 17,200
	2 Printers (\$1,600)	= 3,200
	Developing Equipment	= 5,000
	Paper Inventory	= <u>4,000</u>
	Total	\$60,000

The above may be replaced by a video camera with single frame attachment so that "wet photography" can be eliminated to a large extent. This would save considerable space.

Market

Target: \$100,000 per year
 Area: Legislative documents, records (medical, personnel except inmates, financial statements)

Five Year Return on Investment

Civilian staff	\$30,000
Inmates	8,000
Raw materials & supplies	4,000
Utilities	2,900
Depreciation	<u>6,100</u>
Total	\$51,000
 Annual Sales Required	 \$63,200

Ring Binders

We recommend that SUI establish a vinyl ring binder operation as a new industry. While this is not a major industry employer in and of itself, the market is sufficient to warrant setting up a small binder operation. The shop could later be expanded to produce other vinyl products such as diploma covers and business card cases. Purchasing records indicate the state-use market for ring binders was \$23,800 in FY 1984 and \$47,300 in FY 1985. These figures do not include the local school markets. This commodity is always in demand in schools and universities as well as in state and county offices. Montgomery County Public Schools estimates that 20,000 binders were ordered last year @ \$1.10 per binders. The following agencies expressed an interest in this product on our survey:

Howard County Purchasing Department
Baltimore County Central Service Purchasing
Prince George's County Purchasing Department
Judiciary of Maryland
Anne Arundel County School Board
Baltimore City Public Schools
Department of Natural Resources
Department of Human Resources
Department of Education, Central Administration
Department of Health and Mental Hygiene
Towson State University
Department of Licensing and Regulation
Anne Arundel County Purchasing Department
City of Baltimore Purchasing Department
University of Maryland, Baltimore
University of Maryland, College Park
Montgomery County Purchasing Department

In addition, a review of state purchasing files revealed tax offices for Baltimore City, Montgomery County, and the state to be among the major consumers of binders. Other buyers include the Maryland Police and Training Academy, probation and parole, and several of the agencies listed above.

. Exhibit 4
Requirements for Ring Binders

Industry

Building			Personnel:
Equipment (operating)	= \$150,000*		Civilian 1
Auxiliary Equipment			Inmate 10
(Chairs, Files, etc.)	= 2,000		
Inventory	= <u>10,000</u>		
 Total Est. Start-Up Cost	 \$162,000		
(Excludes facility)			

* Note - graphic operations could be shared with sign refurbishing shop. (Estimate here is \$100,000.)

Physical Aspects

Area: 5,000 sq. ft.
Floors: 1
Construction: Masonry
Height of Ceiling: Normal
HVAC: Exhaust fan, normal heat
Utilities: Electric 110/220

Equipment

Preparation Equipment = \$50,000

Market

Target: \$75,000 per year
Area: All state agencies, institutions, schools (with appropriate decals)

Five-Year Return on Investment

Civilian staff	\$30,000
Inmates	10,000
Raw materials & supplies	10,000
Utilities	3,300
Depreciation	<u>5,200</u>
Total	\$58,500
 Annual Sales Required	 \$68,500

Furniture Refinishing

We recommend that a furniture refinishing shop be established as an independent industry concentrating primarily on the refurbishing of metal furniture. Refinishing is a service-based manufacturing industry in which a prominent market has emerged in times of resource cutbacks for new capital purchases. Most of the agencies to which SUI has sold its furniture in the past represent potential customers for a refurbishing industry. Thus a refinishing operation provides a labor-intensive industry which builds on existing SUI expertise in the furniture area.

Morgan State University expressed considerable interest in having a substantial amount of work done. Holy Cross Hospital reported that about 50% of its present furniture needs refurbishing. Harford County reports that most of their furniture was acquired as used from Workmen's Compensation and Social Security offices and has potential for refurbishing. Baltimore City Public Schools indicated they had their own refurbishing shop, but if SUI could do the work less expensively, they would be interested. Other agencies contacted that were interested in the possibilities of refurbishing include:

Department of Transportation, Vehicle Administration
Howard County Purchasing Department
Baltimore County Central Service Purchasing
Prince George's County Purchasing Department
Judiciary of Maryland
Archives
Department of Budget and Fiscal Planning
Prince George's County School Board
District Court of Maryland
Department of Natural Resources
Department of Human Resources
Department of Transportation, Highway Division
University of Maryland, College Park
Towson State University

**Department of Licensing and Regulation
Anne Arundel County Purchasing Department
City of Baltimore Purchasing Department
University of Maryland, Baltimore**

To further enhance support of this industry, SUI received positive remarks from Prince George's County School Board for the refurbishing work they did on school desks this past year. They indicated they were extremely pleased with the service and had told several other agencies about SUI's work.

Landscaping

We recommend that a landscaping service be considered as a potential new industry. Landscaping is a labor-intensive service industry requiring a relatively low capital investment. It has a great deal of potential, although the precise size of the market is somewhat difficult to determine. The state spent \$49,500 last year for nursery bulbs and seeds, and another \$17,500 for shade trees. The Director of Services for the Department of Budget and Fiscal Planning is very interested in the potential for establishing such a service. He informed us that each state agency has \$7,500 in its annual budget allowance for discretionary allocation, often used for plants and ground cosmetics. He added that small state contracts around highway picnic areas and parks would also be ideal for landscaping crews. In this case, it may be necessary to involve the Department of Natural Resource's landscape architects for planning purposes or perhaps in the training of inmates.

While most of the landscaping work would be concentrated in or around the Baltimore area, since that is where most state offices are located, some of the larger counties also represent potential customers. The Montgomery County Purchasing Agent was interested in a landscaping service. Montgomery County has a policy of contracting out as much of this type of work as possible. He also suggested starting a "beautification" campaign for those areas around the state requiring such attention.

The Howard County Purchasing Department spends about \$6,000 a year on flowers and plants and \$8,000 on a grass cutting contract. Prince George's County Hospital spends about \$2,000 a year on landscaping, while Holy Cross Hospital reported spending \$50,000 on these services. A number of agencies contract for major landscape work and use their maintenance crews for daily

grounds upkeep. Other agencies expressing interest in the landscaping service include:

**Anne Arundel County School Board
Anne Arundel County Purchasing Department
Baltimore County Central Service Purchasing
Harford County Procurement
City of Rockville
Carroll County Purchasing**

A number of constraints associated with establishment of a landscaping operation must be mentioned. First, contracts would have to be negotiated with individual agencies rather than by setting up the service on a statewide contract. It would require that a large enough pool of minimum security inmates be available on a regular basis. Third, it is a seasonal industry. For these reasons, we recommend that SUI actively pursue landscaping contracts through expansion of its existing service industry operations.

Exhibit 6
Requirements for Landscaping

Industry

Building (if none exists)	= \$15,000	Personnel (each site):
Equipment (operating)	= 40,000	Civilian 2
Auxiliary Equipment		Inmate 30
(Chairs, Files, etc.)	= 2,000	
Inventory	= <u>1,000</u>	
 Total Est. Start-Up Cost	 \$43,000	
(Excludes facility)		

Physical Aspects

Area (50 x 20): 1,000 sq.ft.
 Floors: 1
 Construction: Light masonry; if
 none exists, garage type
 Height of Ceiling: 10 ft.
 HVAC: Enough to keep from freezing
 in some cases
 Utilities: Electric 110 V AC
 Motor fuel and lubricants

Equipment

1 Truck (to haul medium- size shrubs & trees)	= \$20,000
1 Light Duty Tractor	= 15,000
1 Riding Mower	= 3,000
Garden Tools (rakes, hoes, spades, weed eaters, fertilizer applicators)	= <u>1,000</u>
 Total	 \$40,000

(Note: Contracting agency pays for
 necessary materials.)

Market

Target: \$120,000
 Area: State and county offices, hospitals, parks

Five Year Return on Investment

Civilian staff	\$ 60,000
Inmates	25,000
Raw materials & supplies	1,000
Utilities	5,400
Depreciation	<u>4,200</u>
Total	\$ 95,600
 Annual Sales Requirement	 \$104,000

Comments

No nursery or greenhouse included at present. Two types of landscaping:

1. **Complete lawn and garden upkeep/maintenance** with SUI operated nursery stock, fertilizers, mechanical equipment on contract basis to state/local government agencies/institutions. This type requires a professional agriculturist. With greenhouse facilities, the estimated cost would be \$100-150,000. Personnel: 3 civilians and 30-40 inmates. Need for this should be established by indication of firm commitment from institutions or agencies.

2. **Local maintenance of lawn/garden.** Minimum equipment, contract labor with one civilian for each 10-15 inmates at about \$250/day with client supplying all material. Equipment recommended here will allow start-up at basic level and development into a full service operation.

This is a low capital cost industry requiring low-skilled labor and physically healthy personnel. Release skills for inmates include training in gardening/agricultural techniques.

Other Potential Industries for Consideration

Automobile Refurbishing. The refurbishing of automobiles for resale is another potential industry for SUI to consider in their long-term expansion plans. The positive aspects of a refurbishing operation are its labor-intensive nature and its ability to teach some worthwhile job skills. Yet it is unclear from our research if the market is sufficient to warrant a full scale refurbishing operation. The Highway Division of the State Department of Transportation already refurbishes some of their vehicles at selected field locations and reports an increase in the resale value as a result. While several agencies expressed some interest in this operation (including Montgomery County and the State Police--the latter replace around 400 vehicles a year), it is also uncertain as to how cost-effective a refurbishing industry might be. SUI should maintain this as an option and continue to study the feasibility of such an operation.

Bus Refurbishing. One final industry prospect deserving mention is a bus refurbishing operation. While bus refurbishing represents a potentially sizable industry operation, current state law requires that county schools sell their buses regardless of condition after 12 years of operation. Due to the high cost of new buses, a number of persons expressed interest in having buses refurbished if it were possible under the law. However, should the law be changed, allowing SUI to pursue such an operation, the following information gathered may be relevant at some future point. Reportedly, it costs about \$34,000 for a new bus and only \$16,000 for one that is refurbished. The only other potential market source at present is the Department of Transportation Mass Transit Administration who currently contract to Westinghouse for bus refurbishing. The service costs

approximately one-half that the \$150,000 price of a new MP bus, or \$75,000 each. While the market and inmate employment potential would be quite large, concerns regarding liability would have to be dealt with. One possibility is for SUI to start refurbishing bus seats as a way of gradually penetrating this market.

Recommended Locations for New Industries

It is our understanding that two new buildings with 20,000 square feet of floor space for industries are planned for construction at the Roxbury Institution in Hagerstown. Moreover, plans are in process for renovations at the Penitentiary in Baltimore, making additional space available for industries. The original RFP requirements requested our recommendations for one 35-inmate operation at Hagerstown and another at either Baltimore or Jessup. Since the House of Correction in Jessup already has a number of existing industries and space is at a premium there, we will recommend the Baltimore location for major a new industry. Thus our projected new industries and locations are as follows:

<u>Industry</u>	<u>Facility Location</u>
1. Uniform Manufacture	MSP-Baltimore
2. Janitorial Products	Hagerstown Complex or MIOC-Jessup
3. Microfilming	Hagerstown or Women's
4. Ring Binders	Hagerstown or Women's
5. Furniture Refinishing	Hagerstown
6. Landscaping Services	SUI Main Warehouse(Balt)

Since furniture refinishing and uniform manufacture will both employ a large number of inmates and will consume about the same amount of space, the recommended locations can be interchangeable. While there is a marginal transportation advantage to having the furniture refinishing at a Baltimore location, the existing metal furniture plant at Hagerstown provides flexibility in terms of staff expertise. (If for any reason the uniform

operation is not established, we would recommend that the furniture refinishing plant be set up at the Penitentiary since they have a greater need for another large industry.) Due to security reasons, however, we would recommend that microfilm and janitorial products not be considered for the Maryland Penitentiary. While these industries are most appropriate for one of the Hagerstown facilities, there may be a cost advantage to establishing the janitorial products next to the paint plant in Jessup. Either ring binders or microfilm could also be set up at the women's facility in Jessup. Landscaping must be in the Baltimore or Jessup locations since its primary market lies in the surrounding urban areas. A second satellite operation could feasibly operate out of Hagerstown to provide landscape services for the western part of the state.

Job Training Potential of New Industries

Several methods were used to examine the job potential of prospective new industries recommended for implementation. First, we contacted the Maryland Department of Employment and Training for their labor market analysis statistics. The following table illustrates the prospects for manufacturing and service jobs projected through the year 1990.

Table 1
Industrial Outlook for 1990 in Selected Jurisdictions

<u>Indus.</u>	<u>Jurisdiction</u>	<u>1982 Employment</u>	<u>Av. Wkly Wage</u>	<u>1990 Employment</u>	<u>Net Jobs</u>	<u>Growth Rate</u>
Mfg.	Anne Arundel Co.	18,955	\$526.00	22,699	3,744	19.8%
	Baltimore City	60,137	\$388.00	44,286	-15,851	-26.4%
	Baltimore Co.	48,142	\$442.00	47,713	-429	-.9%
	Carroll Co.	5,900	\$335.00	7,780	1,880	31.9%
	Frederick Co.	5,579	\$335.00	7,297	1,718	30.8%
	Harford Co.	4,301	\$296.00	4,459	158	3.7%
	Howard Co.	6,137	\$350.00	6,053	-84	-1.4%
	Montgomery Co.	12,628	\$404.00	14,593	1,965	15.6%
	Prince George's Co.	11,080	\$388.00	12,443	1,363	12.3%
	Washington Co.	12,012	\$390.00	13,714	1,023	14.2%
	State of MD	215,828	\$394.00	213,962	-1,866	-.9%
Srv.	Anne Arundel Co.	33,941	\$248.00	36,605	2,664	7.8%
	Baltimore City	125,680	\$227.00	163,182	37,502	29.8%
	Baltimore Co.	75,493	\$248.00	79,473	3,980	5.3%
	Carroll Co.	7,667	\$199.00	8,019	352	4.6%
	Frederick Co.	8,692	\$221.00	11,000	2,308	26.6%
	Harford Co.	9,176	\$240.00	9,982	806	8.8%
	Howard Co.	14,813	\$344.00	17,634	2,821	19.0%
	Montgomery Co.	110,467	\$357.00	130,058	19,591	17.7%
	Prince George's Co.	73,928	\$278.00	80,375	6,447	8.8%
	Washington Co.	10,512	\$227.00	11,666	1,154	11.0%
	State of MD	518,172	\$286.00	600,320	82,148	15.9%

Table 1 examines the job outlook for those counties with populations over 100,000. On the manufacturing side, the table demonstrates that the largest growth is projected for Anne Arundel (19.8%), Carroll (31.9%), Frederick (30.8%), Montgomery (15.6%), Prince George's (12.3%), and Washington (14.2%) counties, while losses in manufacturing jobs are expected for the Baltimore metro area. Manufacturing jobs as a whole for the State of Maryland will remain constant through the 1980's. On the service side, however, the number of jobs in all jurisdictions is expected to grow, with the Baltimore

area experiencing the largest increase in jobs. Statewide the growth in service jobs will average 15 percent over the period. Service jobs also comprise nearly one-third of all positions available in the state, as compared to about 12 percent for manufacturing. It should be pointed out that while the service area will offer greater opportunities for jobs, the average weekly wage will be around 75 percent of that for manufacturing occupations.

As was discussed in the introduction to our findings in examining the market for new industries, we attempted to identify both manufacturing and service-type industries. For manufacturing (uniform ring binders, and janitorial products) and related service industries (furniture refinishing and microfilm processing), we have identified a list of prospective employers (give source) in Appendix F to this report.

Potential for employment in landscape services work exists at any local nursery. A landscaping industry will teach inmates the following horticultural skills:

- tree removal
- site preparation
- planting lawns, trees, and shrubs
- tree and lawn maintenance
- lawn equipment maintenance
- soil preparation
- planting and pruning.

Additionally, both furniture refinishing and landscaping industries offer the potential for inmate apprenticeship positions certified by the Department of Labor. The furniture refinishing operation would involve many skills similar to those presently taught in SUI's metal and upholstery shops. Most of the positions in these shops are already approved for the apprentice program. Other industries recommended (uniforms, binders, janitorial products, and microfilming) also offer potential for apprentice certification. Uniforms and

microfilming already require specific skills in sewing and photography that are recognized for apprenticeship. Nearly any job can be developed into an apprentice position in conjunction with the unions and State Apprenticeship Council.

SUMMARY AND CONCLUSIONS

This study was performed at the request of Maryland State Use Industries to assist them in expanding their present industries program. The purpose of the study was twofold. First, it was to recommend at least two new industries with a minimum sales potential of \$100,000. Second, it was to recommend new product lines for eight of its existing shops. The recommended new industries must provide jobs for 70 inmates at two locations. The introduction to this report elaborates on the specific market and economic requirements to which these new industries/products must adhere.

Consistent with the study requirements, the following new industries and products are recommended for SUI expansion.

<u>New Industry</u>	<u>Number of Inmate Jobs</u>	<u>Estimated Sales Potential</u>
1. Uniforms	35	\$350,000
2. Janitorial Products	12	250,000
3. Microfilming	8	100,000
4. Furniture Refinishing	20	125,000
5. Ring Binders	10	75,000
6. Landscaping	30	120,000

<u>Existing Shop</u>	<u>New Product</u>
1. Brush & Carton	Straw Brooms
2. Sewing	Blankets & Scrub Shirts
3. Metal I	Folding Chairs
4. Metal II	File Cabinets & Lockers
5. Paint	Janitorial Waxes
6. Mattress	Waterproof Mattress & Chair Cushions
7. Sign	Refurbishing Component
8. Meat Processing (replaces Tag)	Sausage & Lunch Meats

Details relating to each of these new industries/products are provided in the study findings along with the rationale for recommended facility locations and job training potential of each. Also included is a discussion of key sales issues such as customer service, product quality, and price that can impact on SUI's ability to penetrate new markets.

In conclusion, several points should be made as they bear on future expansion plans of SUI. First, more than two industries meeting the requirements were found to be viable and are presented here. This will allow SUI flexibility in their implementation decisions based on inmate employment potential, sales volume, and space available at the various facilities. Second, there is substantial potential for interdependence between existing and recommended new industries. For example, the graphics shop could serve both the ring bindery operation as well as sign refurbishing. Similarly, paint and janitorial products have some of the same production equipment requirements. In terms of space, expanded warehouse capability for receiving, shipping, and storing materials may conserve plant space while providing better control over production and distribution. A considerable savings could be achieved if implementation plans take advantage of this interdependence.

Third, recent interest has been expressed in the possibility of prison industry programs being operated jointly with the private sector. The recommendations made in this report do not exclude such joint venture operations. In fact, private sector involvement may facilitate establishment of those operations with high capital costs required for start-up, e.g., janitorial products.

APPENDICES

APPENDIX A

SUI Staff Contacted During Survey

Daniel J. More	General Manager
Larry Franklin	Fiscal Manager
Carol Ernst	former Sales Manager
Lee McGee	Director of Services
Frank Eckert	Coordinator, Hagerstown Shops
Preston Semler	Supervisor, Metal I
Ray Borchert	Supervisor, Metal II
Walter Marshall	Supervisor, Upholstery
Michael Fageer	Supervisor, Meat Processing
Helena Robinson	Supervisor, Sewing
Carmella Kalangznski	Supervisor, Sewing
John Mieller	Supervisor, Tag and Sign
Herman Mbray	Supervisor, Mattress
Umakant Rajguru	Supervisor, Paint
Oscar Peoples	Supervisor, Brush and Carton

APPENDIX B

Contacts For Marketing Study

State Agencies

Mr. C. Allen	Maryland State Archives
Mr. A. Annan	State Department of Education, Central Administration
Ms. Avera	Towson State University
Mr. Bryon	Department of Licensing and Regulation
Ms. Curtis	Morgan State University
Mr. Drach	University of Maryland, Baltimore
Mr. Gladding	Department of Budget and Fiscal Planning
Ms. Gosnell	Department of Natural Resources
Mr. Gray	Department of Health and Mental Hygiene
Mr. A. Griczin	Department of General Services
Mr. Guardino	Department of Budget and Fiscal Planning
Mr. P. Harris	Department of General Services
Ms. Hemminger	Judiciary of Maryland
Mr. R. Jones	University of Maryland, College Park
Ms. Justice	District Court of Maryland
Ms. G. Kearney	Department of Human Resources
Mr. Long	Department of Transportation, Vehicle Administration
Mr. W. Lycett	Department of Transportation, Highway Division
Mr. J. Mann	Former Director of State Purchasing
Mr. Miller	Department of General Services
Mr. J. Pirro	Department of Budget and Fiscal Planning
Mr. Stien	Department of Transportation (PA)
Mr. Taylor	Department of Transportation, Mass Transit
Mr. J. Wales	State Board of Community Colleges, SUI Advisory Board
Cpl. J. Williams	Maryland State Police

County and City Agencies

Mr. G. Bass	Prince George's County Hospital
Mr. Battan	Montgomery County Purchasing Department
Mr. Carmody	Howard County Purchasing Department
Mr. Catterton	Prince George's County School Board
Ms. Deitz	Baltimore County Central Service Purchasing
Mr. Dotterwiech	Anne Arundel County School Board
Ms. Eisenschmid	Montgomery County General Hospital Purchasing Department
Mr. Flannagan	Montgomery County Hospital (Holy Cross)
Mr. J. Fulton	Harford County Procurement
Ms. Gagnon	Prince George's County Purchasing Department
Mr. R. Koontz	Frederick County Purchasing Department
Mr. Lehmann	Baltimore County Public Schools
Mr. M. Long	Wicomico County Purchasing Department
Mr. Lyle	Anne Arundel County Purchasing Department
Mr. Nasby	Baltimore County Public Schools
Ms. N. Nelson	City of Rockville Purchasing Office

Mrs. Pierce
Mr. R. Shelton
Mr. D. Todd
Mr. Wjdag

City of Baltimore Purchasing Department
Carroll County Purchasing
City of Salisbury Purchasing
Montgomery County Public Schools

Other Organizations

Mr. J. Burrell
Ms. Carewe
Mr. P. Ferrar
Mr. T. Hague

Maryland Municipal League
Secretary, Maryland State Sheriffs' Association
Consultant to Maryland Blind Industries
U.S. Department of Labor

APPENDIX C

Peer Survey Contacts

<u>State</u>	<u>Contact</u>	<u>Industry</u>
California	Dick Murray	Microfilming
Delaware	David Kalili	Tag
Florida	Anthony Dawsey	Landscaping
Florida	Jim Palizza	Lunch Meat and Sausage
Illinois	Howard Skolnick	Janitorial Products
Kansas	Leonard Ewell	Janitorial Products
Massachusetts	Peter Argopolis	Ring Binders
North Carolina	Mr. Payne	Lunch Meat and Sausage
Ohio	Jack Keene	Microfilming
South Carolina	Joan Carullo	Furniture Refinishing
Virginia	Herb Parr	Uniforms
Washington	Sheila Pearson	Microfilming
West Virginia	Charles McCracken	Tag
Wisconsin	Stephen Scannell	Tag

APPENDIX D

Replication Steps for Marketing Study

1. Establish the goal for the study. The study should be targeted and be designed to avoid open-ended research. Collect data source documents to be used in the study. These may include any prior marketing, planning, feasibility, or audit reports conducted in-house, by the legislature, or outside consultant group.
2. Conduct literature search of existing knowledge base to develop initial target list of industries. The search should examine existing vocational programs, trade catalogs, and those documents noted above. The target list of industries should reflect the most recent developments in prison industries across the nation as well as new ideas that merit consideration.
3. Personal interviews should be conducted with key staff to review the target list. Staff interviews will minimally include the following:
 - Director of Industries
 - Sales and Marketing Manager
 - Financial Manager
 - Production and Design Manager
 - State Purchasing Chief
 - Shop Supervisors

The target list of industries is to be modified accordingly to incorporate the suggestions and comments of those staff interviewed.

4. Conduct a review of state purchasing records to determine the market size and viability for industries identified on target list. Make further modifications in industry target list accordingly. (Note: Purchasing records will primarily be useful in examining commodities rather than services.)
5. Determine the key agencies and their representatives to be contacted in conducting the market study. Depending upon the scope of the study, the following state agencies, associations, and county jurisdictions typically will be included:
 - Department of Transportation/Highways
 - Department of Mental Health
 - Department of Human Resources
 - Department of Natural Resources (parks)
 - Department of Education
 - Department of Corrections (adult and juvenile)
 - State Universities (sample is adequate)
 - State Hospitals (sample is adequate)
 - State Association of Counties
 - State Municipal Association
 - State Sheriffs' Association
 - County Purchasing Agents (major counties)
 - Local school boards (where independent)

A snowball survey technique is used in following through on appropriate contacts, i.e., one person leads to another.

Decide whether personal or telephone contact is necessary. While personal interviews are preferable if possible, in many cases resource limitations may prohibit field interviews especially if travel is involved. It is our experience that mail surveys will not provide the desired results in this type of study.

6. Develop data collection instruments to be used in conducting the market study. Information to be included in the survey instruments should include prior experience with prison industries (where applicable), or its reputation as to price, quality, delivery, design, and customer service issues. The survey should also measure interest in certain products targeted for consideration as well as an open question on other potential products that could be provided. In addition, the survey should ask what are the key factors in the buyer's purchasing decision. Other informational items that may be collected are indicators of market size, information on competitors, and special considerations that may affect an agency's ability to buy from prison industries.
7. Contact State Department of Labor, Employment and Training for relevant statistics on employment projections. This data will be used to indicate the relevant job potential for industries under consideration.
8. Analyze data to develop final industry target list which incorporates all of the findings collected in the course of the survey. The original list should get smaller as certain industries are eliminated due to a number of constraining factors. These may include legal issues, complexity of initiating a particular industry, security concerns, level of capital investment required, or adverse reaction from external sources.
9. Conduct peer survey of other state industry programs with operations similar to those targeted. Among the data to be collected will include:
 - personnel (staff and inmate)
 - equipment specifications
 - space and utility requirements
 - raw material needs
 - costs for start-up and operating
 - production levels
 - profit margins
 - problem areasAnalysis of this data will determine the feasibility of initiating those industries for which markets were identified in the study.
10. Write final report presenting synthesis of results for recommendation.

APPENDIX E

Requirements for New Products

Janitorial Waxes (New Product)

Industry

Building (part of paint shop)		Personnel:	
Equipment (operating)	= \$10,000	Civilian	1
[for modification]		Inmate	8
Auxiliary Equipment			
(Chairs, Files, etc.)	= 2,000		
Inventory	= <u>10,000</u>		
Total	\$22,000		

Physical Aspects

Area: 3,000 sq. ft.
Floors: 1
Construction: Masonry
Height of Ceiling: 14 ft.
HVAC: Normal, with exhaust
Utilities: Electric 110/220

Equipment

Existing mixing tanks not used for paint production can be used for blending and formulating oil-based waxes and stripping liquids.

Market

Target: \$150,000 per year
Area: State agencies, schools, hospitals, institutions

Luncheon Meats/Sausages (New Product)

Industry

Building (not included; more space needed)		Additional Personnel:
Equipment (operating) = \$250,000		Civilian 1
Auxiliary Equipment (cold freezer & associated equipment) = 50,000		(specialist in meat product formation)
Inventory (products & materials) = <u>10,000</u>		Inmate 8
Total	\$310,000	

Physical Aspects

Area: 2,000 sq. ft.
Floors: 1
Construction: Masonry and Insulation
Height of Ceiling: 11-12 ft.
HVAC: Cold Storage
Utilities: Electric 110/220
Steam - low pressure for refrigeration/sanitation;
hot water - 160-170 degrees

Equipment

Packaged proposal from vendor in California with supervisor of meat processing facility at Hagerstown

Market

Target: Very large (see narrative)
Area: Schools, agencies, cafeterias, state health and correctional institutions
Capacity: Up to 15,000-20,000 lbs. per month

File Cabinets and Lockers (New Product)

Industry

Building (addition to Metal I)		Personnel:	
Equipment (operating)	= \$50,000	Civilian	1
Auxiliary Equipment		Inmate	6
(Chairs, Files, etc.)	= 2,000		
Inventory	= <u>10,000</u>		
Total Est. Start-Up Cost	\$62,000		
(Excludes facility)			

Physical Aspects

Area: 5,000 sq. ft.
Floors: 1
Construction: Masonry
Height of Ceiling: 12-14 ft.
HVAC: Normal
Utilities: Electric 110/220

Equipment

Expansion of metal shop; much of
equipment could be used.

Estimate = \$50,000-75,000

Market

Target: \$200,000 per year
Area: Institutions, hospitals, state agencies, schools

Straw Brooms (New Product)

Industry

Building (existing but more space needed)		Personnel:
Equipment (operating) = \$35,600		Civilian 1
Auxiliary Equipment		Inmate 10
(Chairs, Files, etc.) = 2,400		
Inventory = <u>5,000</u>		
Total	\$43,000	

Physical Aspects

Area: 3,000 sq. ft.
Floors: 1
Construction: Masonry
Height of Ceiling: 10 ft.
HVAC: Normal, no AC
Utilities: Electric 110/220
Gas - Yes

Equipment

Dye Tanks	= \$ 2,300
Broom Winder	= 5,400
Broom Bundle Cutter	= 5,100
Scraper	= 4,900
Hand Clipper	= 400
Sewing Machine	= 2,500
Broom Stretcher	= <u>15,000</u>
Total	\$35,600

Market

Area: Institutions, state agencies (buildings and highway), schools
Capacity: Estimated production -- 10 brooms/hour; \$40,000 per year

Comments

Adjunct manufacturing facility to brush and carton shop. Low numbers of personnel due to overlapping tasks in all shop areas.

Additional New Products Recommended

Blankets

Blankets can be produced in the sewing shop with the currently available equipment. In order to meet the economic feasibility requirement, i.e., production of item does not exceed 75 percent of selling price, raw material cost should not exceed 60 percent of blanket sales price.

Folding Chairs

Folding chairs can be added to the Metal II shop without any additional equipment. Parts can be provided by Metal I; Metal II labor can perform the final assembly.

Waterproof Mattresses and Cushions

Waterproof mattresses and chair cushions can be added to the present mattress operations with the purchase of a heat-sealing machine. This equipment should cost under \$5,000.

APPENDIX F
Prospective Employers
Selected From
Directory of Maryland Manufacturers 1985-1986

<u>New Industry</u>	<u>Employer</u>	<u>City</u>	<u>Products</u>
Microfilm	Baltimore Photo and Blueprint Co., Inc.	Baltimore	
	Garden's Reproductive Arts	Baltimore	
	Johns Hopkins University	Baltimore	Library/Records
Uniforms	Balco Uniform Cap Corp.	Baltimore	Uniform Caps
	College Bowl Inc.	Baltimore	Athletic Uniforms
	Delmar Mfg. Inc.	Snow Hill	Men, Youth & Boys Work Clothing
	Delmar Shirt Co.	Delmar	Work Shirts & Pants
	Devachan Ltd.	Burkittsville	Men, Youth & Boys Work Clothing
	Flushing Shirt Mfg. Co. Inc.	Grantsville	Uniform Shirts
	G & G Uniform Co.	Baltimore	Women/Children, Dr. Jackets, etc.
	Haas Tailoring Co.	Baltimore	Men's Suits/Uniforms
	Hanover Uniform Co.	Baltimore	Trousers
	Howard Uniform Co.	Baltimore	Men's Uniforms
	Katzenberg Brothers Inc.	Baltimore	Girls' Gym Uniforms
	Lee Uniform Cap Mfg. Co.	Baltimore	Uniform Caps
Nurses Uniform Co., Inc.	Baltimore	Uniforms, Lab Coats Boys Work Clother	

**Ring
Binders**

Bindagraphics Inc.	Baltimore	Vinyl Looseleaf, 3-Ring Binders
DVC Industries	Beltsville	Looseleaf Binders
Gerding Printing Co.	Baltimore	Looseleaf Binders
Gordon L. Packaging	Baltimore	Looseleaf Binders
Hagerstown Leather Goods Co.	Hagerstown	Ringbinders Leather Billfolds Key Cases, Card Cases, Pocket Secretaries
B. C. Lucas & Sons Inc.	Baltimore	Vinyl Plastic Binders, Catalogue Covers
Optic Graphics Inc.	Glen Burnie	Looseleaf Binders
Paul Co.	Baltimore	Looseleaf Binders Blank Books

**Janitorial
Products**

Alcolac Inc.	Baltimore	Detergents
Arcal Chemicals Inc.	Seat Pleasant	Detergents Truck/Car Wash Soap Disinfectants
Atlantic Southwestern Broom Company	Baltimore	Janitorial Products
Bauer Chemical Co.	Bare Hills	Laundry Soaps
Cello Corp.	Havre de Grade	Cleaning Compounds Washroom Maintenance Products Liquid Household Cleaners
Clorox Co.	Frederick	Liquid Bleach
Commercial Wiping Cloth Corp.	Bladensburg	Soap, Cleaning & Janitor Supplies
Dentocide Chemical Corp.	Baltimore	Cleaning Compounds

	Diamond Shamrock Chemicals	Catonsville	Laundry and Dry Cleaning Speciality
	Dynasurf Chemical Corp.	Baltimore	Waxes, Cleaners
	Environmental Control Systems, Inc.	Church Hill	Disinfectants, Detergents/Cleaning Compounds, Floor Care Products
	Fischer-Lang & Co., Inc.	Frederick	Handsoaps, Disinfectants
	Fitch Dustdown Co.	Baltimore	Sweeping Compounds Floor Wax, Janitor Supplies
	General Liquids Corp.	Baltimore	Floor Compounds
	Lever Brothers Co.	Baltimore	Soap, Detergent
	Mangels, Herold Co., Inc.	Baltimore	Liquid Ammonia and Bleach
	Noxel Corp.	Cockeysville	Lestoil
	Peerless Chemical Co.	Baltimore	Soaps, Cleaning Compound
	Proctor & Gamble Mfg. Co.	Baltimore	Soaps, Synthetic & Liquid Detergents
Furniture Refinishing	Ace Furniture Co., Inc.	Baltimore	Upholstered Furniture
	Anthony Fiorilli, Inc.	Baltimore	Repairs, Refinish- ind & Upholstering
<u>New Products</u>			
Brooms and Brushes	Atlantic Southwestern Broom Co.	Baltimore	Brooms, Household and Industrial Brushes
	Industrial Paper Co., Inc.	Baltimore	Brooms & Brushes
	Lieba, Inc.	Baltimore	Dust-A-Matic Dusting Brush and Mbp

	Maryland Fiber Corp.	Baltimore	Brush and Broom Fibres
	Howard Overman & Son	Baltimore	Household and Industrial Brooms
	PPG Industries, Inc.	Baltimore	Painter Maintenance, Power, Staple Set Brushes
	Rubberset Co.	Crisfield	Paint Rollers
	I. Sekin Co., Inc.	Baltimore	Personal, Houseware Small Industrial, Dye & Applicator Brushes
Mattresses	Baltimore Mattress Corp.	Baltimore	Mattresses and Box Springs
	Classic Corp.	Beltsville	Waterbeds
	Eclipse Sleep Products	Baltimore	Mattresses and Box Springs
	New Windsor Division	New Windsor	Sleep Sofas
	Sealy of MD and VA, . Inc.	Hagleythorpe	Mattresses and Springs, Sofas
	Serta Mattress Co.	Landover	Mattresses and Box Springs
	Victor Stanley Inc.	Dunkirk	Convertible Chairs
File Cabinets	Blaine Window Hardware, Inc.	Hagerstown	Shelving, Lockers Office & Store Fixtures
	J K Cabinet, Inc.	Baltimore	Store Fixtures
	Merchandising Concepts	Rockville	Shelving, Lockers Office & Store Fixtures
	S A R Metal Products Co.	Baltimore	Metal Cabinets
	Southern Steel Shelving Co.	Baltimore	Steel Shelving and Lockers

**Sausage
Luncheon
Meats**

Acme Packing Co.	Baltimore	Sausage, Beef Jerky, Meat Snacks
Armour & Co.	Dorsey	Fabricated and Portion Control Meat Products
Aunt Lucy Hams Inc.	Walkersville	Sausage, Scrapple Cured Ham, Bacon
Binkert, Egon Meat Products	Rosedale	Lunch Meat and Sausage
Boesl Packing Co., Inc.	Baltimore	Sausage, Fat Back Chitterlings, etc.
Calvert Meats Inc.	Owings	Beef and Pork Products
Corbin's Meat Packing Co.	Pocomoke City	Sausage
J. S. Dinicola & Sons	Frostburg	Processed Meats
European Kosher Provision Co.	Baltimore	Salami, Bologna Frankfurters, etc.
Hahn Brothers Inc.	Westminster	Sausages and Prepared Meat Products
MJK Ranch	Abingdon	Custom Meat Products
Parks Sausage Co.	Baltimore	Meat Products
Paul Schafer Meat Products	Baltimore	Sausage
H. E. Shallcross & Son	Rising Sun	Sausage & Scrapple
White Coffee Pot commissary	Baltimore	Prepared Meat Products
Yoders Inc.	Grantsville	Fresh, Smoked, Frozen & Canned Meats

**Sign
Refurbishing**

Pat Maran Inc..

Glen Burnie

Magnetic Sheeting
Metal Sign Blanks
Coated

See pp. 435-440 in Directory for a more complete listing.

Janitorial
Waxes

See listing for janitorial products.

Blankets

See listing for uniforms and related apparel manufacturers in Directory.



Washington, D.C. 20534

January 22, 1986

Memorandum to: Cory Whitmore
Project Director
NIC Information Center

From: Mary Lou Commiso *MLC*
Correctional Program Specialist

Enclosed are copies of Marketing Study for Maryland State Use Industries prepared by the Institute for Economic and Policy Studies, Inc. under NIC Grant FL-6 to Maryland State Use Industries.

Maryland was very pleased with the Study and I found it very interesting and believe it would be helpful to other state industry programs contemplating a similar endeavor. Accordingly, I am sending the document on to the Information Center to be used as a resource piece.

If you have any questions, please do not hesitate to call me.

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in R. file*