My Background

- B.S. in Textile Management
- First year Ph.D student:
  - Textile Technology Management
- Intern/Employee of NC Department of Commerce
  - International Trade and Policy & Research
- *State of the N.C. Textile Complex* Research by North Carolina State University
Important Dates in US Textile History

1973-Beginning of the MFA—lasts until 1994

1985
- Textile Negotiations Begin; textiles one of 14 groups negotiated
- Beginning of the Uruguay Round (Push by U.S. to include service sector and by developing countries to include agriculture)

1990

1995
- Stage One of the ATC—Agreement on Textiles & Clothing

2000
- Stage Two of the ATC begins
- Beginning of Asian Currency Crisis (1997-2001)

2005
- Stage Three of the ATC begins
- China joins the WTO

2010
- DR-CAFTA is passed
- Stage Four—the final phase of the ATC and the end to quotas on textiles
State of the Textile Industry:

Project Objectives

1) Market Analysis of North Carolina textile complex
   - Searchable and sortable database by select variables
2) Analyze North Carolina textile companies using Clusters and
   Global Competitiveness Framework (fishbone diagram)
3) Determine needed assistance for companies
4) Identify future collaborative projects

*** New way of thinking of textile complex in North Carolina –
   present and future!!!!

From NC Textile Complex Research, NCSU
About the Textile Complex

• The textile complex includes traditional manufacturing of yarn, fabric, household products and apparel, but it ALSO includes
  – Distribution, transportation, machinery, labeling/ticketing, research/testing services, and other auxiliary industries.
About the NC Textile Complex

- 1,500+ locations
- Over 130,000 employees
- Only 9% are public
- Total Sales are over $34 billion
- North Carolina is the largest Textile Manufacturing State
- 4th largest Apparel manufacturing State
- #1 State for Yarn Production
- #1 State for Nonwoven Roll Goods Production
- NC is home to 4 of the 5 largest home textile suppliers
Breakdown of NC Locations

- Fiber/Yarn: 5%
- Fabric: 14%
- Finishing: 13%
- Apparel: 12%
- End Processes: 12%
- Machinery: 13%
- Hosiery: 9%
- Chemicals: 8%
- Miscellaneous: 3%
- Research/Service: 11%

From NC Textile Complex Research, NCSU
North Carolina Textile Complex

NC Company Locations
- Service & Research
- Raw Materials
- Fabric
- Yarn
- Dyeing & Finishing
- End Production
- Wholesale

From N.C. Dept. of Commerce
Fabric

• Total: 167 (12% of total)
  – Woven (52%), Knit (36%), and Nonwoven (12%) Fabric
• Employees: 19,512 (16.26% of total)
• Guilford Mills, Freudenberg, PGI, Glen Raven, ITG, Mastercraft (sample of companies)
• Sales: $4.4 billion

Guilford, Mecklenburg, Gaston, Alamance, Stanly

From NC Textile Complex Research, NCSU
Textile Supply Chain (NC)

Fiber/Raw Material → Yarn → Fabric (Weaving, Knitting, and Nonwoven) → Dyeing and Finishing → End Products

1. 60 Companies  1. 138 Companies  1. 227 Companies
2. 5,448 Employees  2. 22,273 Employees  2. 29,581 Employees

1. 297 Companies  1. 497 Companies
2. 18,291 Employees  2. 48,889 Employees

NAICS:
115111  313111  313210  313112  314110
325221  313113  313221  313311  314121
325222  314991  326150  313312  314129
325211  314992  313230  313320  314911
324191  313241  323113  314912  314912
  313249  323119  3237121  337910
  314999  325132  337122  333411
  325199  337910  339113  325998
  all 315
# Textile Supply Chain Exentended (NC)

## Processing
1. 108 Companies
2. 6,047 Employees
3. Sales - $982,714,410

## Wholesale
1. 122 Companies
2. 5,202 Employees
3. Sales - $2,153,050,264

## Associations and Research
1. 43 Companies
2. 1,150 Employees
3. Sales - $158,205,117

### NAICS Numbers
- Processing
  - 323121
  - 322222
  - 322214
  - 322221
  - 333292
  - 333298
- Wholesale
  - 423220
  - 423830
  - 423930
  - 423990
  - 424310
  - 424320
  - 424330
  - 424690
  - 424990
- Associations and Research
  - 813910
  - 813940
  - 5416113
  - 541710

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**NC State University**

**College of Textiles**
Global Value Chain

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About the Database

• Prior to this research, there was no comprehensive, up to date, unrestricted database of all the textile complex companies in North Carolina.

• Existing databases are limited in scope, and are not comprehensive in nature.
Resources for the Database

1) 2006 NC Manufacturers Directory-Harris Info Source
2) Textile Organizations’ Listings:
   INDA, SEAMS, Hosiery Center, Military Business, NCRC, NCTO, North Carolina Textile Foundation
3) Business cards from previous interactions
4) Regional Partnerships
5) Hoovers Online
6) Reference USA
7) Company websites/internet sources
8) Chambers of Commerce
9) Personal phone calls
Database Structure

- Excel Database with 1,500+ textile related companies
- Database sortable by components
- General Information: contact, address, sales, year est., public/private
- Geographic Information: county, zip code, area code, city
- Supply Chain: raw materials, manufacturer, converter, wholesaler, retailer, sales office, distribution center, researcher/service provider
- End Use Industries: automotive, home furnishings, military/protection, medical, apparel, accessories
- Trade Show and Organization Membership
- Web Presence: website, e-commerce, online catalog, email
What are NAICS codes?

- North American Industry Classification System
- NAICS was developed jointly by the U.S., Canada, and Mexico in 2002 to provide new comparability in statistics about business activity across North America.
- Establishments that use the same or similar processes to produce goods or services are grouped together.
- It is a six-digit system that provides for comparability among the three countries at the five-digit level.
- NAICS allows each country to recognize activities that are important in the respective countries, but may not be large enough or important enough to recognize in all three countries. The sixth digit is reserved for this purpose.
Broadwoven Fabric Mill: 313210

NAICS
- 2-digit: Sector
- 3-digit: Subsector
- 4-digit: Industry Group
- 5-digit: NAICS Industry
- 6-digit: National

NAICS: 313210
- 31: Manufacturing
- 313: Textile Mills
- 3132: Fabric Mills
- 31321: Broadwoven Fabric Mills
- 313210: Broadwoven Fabric Mills
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What are the textile *industry* clusters in North Carolina?

- **Traditional Textile & Apparel Manufacturing**
- **New/Emerging Clusters**
  - Textile & Apparel *Trade*
  - Textile & Apparel *Distribution*
  - Textile & Apparel *Creative Innovative*
  - Textile & Apparel *Post-Assembly Customization*

**Hypothesis:** Competitive companies participate in several cluster activities

From NC Textile Complex Research, NCSU
Traditional Manufacturing Cluster
Triad Area

- Guilford, Forsyth, Alamance, Davidson, Randolph
- 328 (24%)
- 24,600+ employees
- $12 billion in sales
- Diversification: Yarn, hosiery, screen printing, fabric, finishing, cut/sew
- Glen Raven, Guilford, Unifi, Sara Lee, Gold Toe, VF Corp, Kayser Roth, ITG (sample of companies)

From NC Textile Complex Research, NCSU
Globally Competitive Textile Complex Companies

Product Type & Mix
- Multiple Products
- Niche Products
- Low Cost of Production

Research & Development
- R&D Dept.
- Design
- New Product Development

Market Mix
- Employee Education

Global Business Perspective
- Export
- Import
- International Trade Show
- International Locations

Manufacturing Capability
- Owns Equipment
- Public or Private
- Low Production Costs
- Free Cash Flow
- Little Debt

Technology
- Efficiency
- Versatility of Equipment
- Vertical Integration

Financial
- New Equipment
- Website
- E-commerce

Marketing
- Branding
- Trade Shows
- Associations

NC STATE UNIVERSITY COLLEGE OF TEXTILES
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Identify Ways to Help Companies

• Use fishbone to match companies with programs available throughout the Department of Commerce such as:
  - International Trade Assistance
  - Tax grants and incentives
  - Training grants

Or put companies in contact with other resources throughout North Carolina…
Other Resources

• Trade Associations
  – INDA, Cotton Inc, [TC]2, AATCC, Hosiery Association

• Training Centers and Education
  – College of Textiles, ITT, Hosiery Technology Center, Gaston Technology Center

• Business Development
  – SBTDC, Small Business Center, Joblink
Challenges in Today’s Industry

• Global Perspective
  – *Firms are marketing* their products in the most profitable places in the world and *manufacturing* in the most economical and efficient places in the world
  – 44% do not report import and/or export activity

• Rapid Development of New Technology
  – 34% of the companies do not have websites
  – Less than 25% belong to trade organizations
Challenges

• Predominately negative publicity
  – In the last two years there have been 144 new or expanded textile companies in North Carolina

• Lack of information on available resources and other existing members of the supply chain in North Carolina
  – My work this summer and Phase II of project
The Only thing Constant is Change...

Questions?
References

• *State of the Union of the Textile Industry in North Carolina*
  – Research by NC State University
  – Dr. Nancy Cassill, Dr. Trevor Little, Dr. Blanton Godfrey, Stacey Frederick

• Research in Progress by Stacey Frederick