This presentation was prepared for Create Boston by the BRA Research Division. The information provided within this report is the best available at the time of its publication.

This report as well as other data on Boston’s creative economy, can be found on Create Boston’s Website: www.createboston.com

All or partial use of the data found within this report must be cited. Our preferred citation is as follows: Boston Redevelopment Authority/Research Division, October 2005.
Table of Contents:

I. Defining the “Creative Economy”

II. Making the Case

III. Appendices

IV. Glossary
Table of Contents:

I. Defining the “Creative Economy”

II. Making the Case

III. Appendices

IV. Glossary
Defining the “Creative Economy”

It is clear from current writing that there is as yet no generally accepted definition of the “Creative Economy.”

The term was first used by Business Week in August of 2000 in a special issue on the 21st Century Corporation -
www.businessweek.com/2000/00_35/b3696002.htm

John Howkins in his seminal book The Creative Economy (2001), describes an economy with fifteen “creative industry sectors” (see Appendix I).

Richard Florida in The Rise of the Creative Class, defines the “Creative Economy” not in terms of industries but in terms of occupations and “creative classes” - (see Appendix II).

The New England Council in its 2000 report, limits the “Creative Economy” strictly to artistic and cultural fields (see Appendix III).
Our definition of the “Creative Economy” is very close to that of the New England Council and incorporates some, but not all, of the industries proposed by John Howkins and Florida.

Our concept is at one time broader than that suggested by the New England Council. We include a broader range of industries. And our concept is narrower than that of either Howkins and Florida because our aim is to capture activities more closely connected to the artistic and cultural core.

Our narrower definition eliminates industries such as business services, law, health care, etc., that are generally accepted as distinct industries.

Our definition of the “Creative Economy” includes at the most aggregated level:
Proposed Definition:

The “Creative Economy” is defined, for the purpose of this research, broadly, as those activities which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation. We include:

- any direct activity in which individual creativity and skill is brought to bear, and which is characterized by innovation and originality and leads to the creation of intellectual property in the form of copyright;
任何活动（上游和下游）都直接有助于创意活动，从而使产品以相同的形式存在；

- 自由职业者（如作家、艺术家等）因为创意产业涵盖了许多自由职业者。

- 绘制在生产系统和生产链的分析基础上，创意产业可以按照以下“创意生产链”映射。

  Creative Production Chain

  ![Creative Production Chain Diagram]

  *内容原创是“创意经济”的核心。*
The stages of the “Creative Production Chain,” outlined above, illustrate the point that to be consumed, a cultural good or service must first be created, produced, perhaps manufactured, and distributed to consumers.

These “functional” categories provide a framework which can be used in the analysis of the “creative economy.”

To make this definition researchable, it was necessary to derive a set of categories from the North American Industry Classification System (NAICS) codes.

The NAICS is a structured indexing system, published by the U.S. Census Bureau, which provides a set of classifications of businesses by the type of economic activity in which they are engaged. The NAICS provides a widely-shared basis for classification of economic statistics and analysis (see Glossary).
## Disaggregated Components of the “Creative Economy” Using Proposed Definition

<table>
<thead>
<tr>
<th>NAICS codes</th>
<th>Creative Industries</th>
<th>Creative Chain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Applied Arts</strong></td>
<td>(C) - creation</td>
</tr>
<tr>
<td>54131</td>
<td>architectural services (C)</td>
<td>(P) - production</td>
</tr>
<tr>
<td>54132</td>
<td>landscaping architectural services (C)</td>
<td>(M) - Manufacturing</td>
</tr>
<tr>
<td>54141</td>
<td>interior design services (C)</td>
<td>(D) - distribution</td>
</tr>
<tr>
<td>54142</td>
<td>industrial design services (C)</td>
<td>(SS) - Support industries</td>
</tr>
<tr>
<td>54143</td>
<td>graphic design services (C)</td>
<td></td>
</tr>
<tr>
<td>54149</td>
<td>other specialized design services (C)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Advertising</strong></td>
<td></td>
</tr>
<tr>
<td>54181</td>
<td>advertising agencies (P)</td>
<td></td>
</tr>
<tr>
<td>54185</td>
<td>display advertising (P)</td>
<td></td>
</tr>
<tr>
<td>54187</td>
<td>advertising material distribution services (D)</td>
<td></td>
</tr>
<tr>
<td>54189</td>
<td>other services related to advertising (D)</td>
<td></td>
</tr>
<tr>
<td>54183</td>
<td>media buying agencies (D)</td>
<td></td>
</tr>
<tr>
<td>54184</td>
<td>media representatives (D)</td>
<td></td>
</tr>
<tr>
<td>54186</td>
<td>direct mail advertising (P)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Performing Arts: Music, Theater and Dance</strong></td>
<td></td>
</tr>
<tr>
<td>71111</td>
<td>theater companies and dinner theater (P)</td>
<td></td>
</tr>
<tr>
<td>71112</td>
<td>dance companies (P)</td>
<td></td>
</tr>
<tr>
<td>71113</td>
<td>musical groups and artists (C)</td>
<td></td>
</tr>
<tr>
<td>71119</td>
<td>other performing arts companies (P)</td>
<td></td>
</tr>
<tr>
<td>45114</td>
<td>musical instrument and supplies stores (D)</td>
<td></td>
</tr>
<tr>
<td>339992</td>
<td>musical instrument manufacturing (M)</td>
<td></td>
</tr>
<tr>
<td>71131</td>
<td>promoters of entertainment events with facility (D)</td>
<td></td>
</tr>
<tr>
<td>71132</td>
<td>promoters of entertainment events without facility (D)</td>
<td></td>
</tr>
<tr>
<td>71141</td>
<td>agents and managers for artists, athletes, entertainers and other public figures (D)</td>
<td></td>
</tr>
<tr>
<td>NAICS codes</td>
<td>Creative Industries</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Publishing and Printing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51111</td>
<td>newspaper publishers (P)</td>
<td></td>
</tr>
<tr>
<td>51112</td>
<td>periodical publishers (P)</td>
<td></td>
</tr>
<tr>
<td>51113</td>
<td>book publishers (P)</td>
<td></td>
</tr>
<tr>
<td>51119</td>
<td>other publishers (P)</td>
<td></td>
</tr>
<tr>
<td>323111</td>
<td>commercial gravure printing (M)</td>
<td></td>
</tr>
<tr>
<td>323113</td>
<td>commercial screen printing (M)</td>
<td></td>
</tr>
<tr>
<td>323114</td>
<td>quick printing (M)</td>
<td></td>
</tr>
<tr>
<td>323115</td>
<td>digital printing (M)</td>
<td></td>
</tr>
<tr>
<td>323119</td>
<td>other printing (M)</td>
<td></td>
</tr>
<tr>
<td>41442</td>
<td>book, periodical and newspaper wholesalers (D)</td>
<td></td>
</tr>
<tr>
<td>45121</td>
<td>book stores and news dealers (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Broadcasting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51311</td>
<td>radio broadcasting (P)</td>
<td></td>
</tr>
<tr>
<td>51312</td>
<td>television broadcasting (P)</td>
<td></td>
</tr>
<tr>
<td>51321</td>
<td>cable networks (D)</td>
<td></td>
</tr>
<tr>
<td>51322</td>
<td>cable and other program distribution (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Sound Recording and Music Publishing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51221</td>
<td>record production (P)</td>
<td></td>
</tr>
<tr>
<td>51222</td>
<td>integrated record production and distribution (P)</td>
<td></td>
</tr>
<tr>
<td>51224</td>
<td>sound recording studios (P)</td>
<td></td>
</tr>
<tr>
<td>33461</td>
<td>manufacturing and reproducing magnetic and optical media (M)</td>
<td></td>
</tr>
<tr>
<td>51223</td>
<td>music publishers - publishing and printing combined (M)</td>
<td></td>
</tr>
<tr>
<td>45122</td>
<td>pre-recorded tape, compact disc and record stores (D)</td>
<td></td>
</tr>
<tr>
<td>NAICS codes</td>
<td>Creative Industries</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Film, Video and Photography</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51211</td>
<td>motion picture and video production (P)</td>
<td></td>
</tr>
<tr>
<td>51212</td>
<td>motion picture and video distribution (D)</td>
<td></td>
</tr>
<tr>
<td>51213</td>
<td>motion picture and video exhibition (D)</td>
<td></td>
</tr>
<tr>
<td>51219</td>
<td>post-production and other motion picture and video industries (m)</td>
<td></td>
</tr>
<tr>
<td>41445</td>
<td>video cassette wholesalers (D)</td>
<td></td>
</tr>
<tr>
<td>53223</td>
<td>video tape and disc rental (D)</td>
<td></td>
</tr>
<tr>
<td>54192</td>
<td>photographic services (C)</td>
<td></td>
</tr>
<tr>
<td>812921</td>
<td>photo finishing laboratories (except one hour) (P)</td>
<td></td>
</tr>
<tr>
<td>45392</td>
<td>art dealers (D)</td>
<td></td>
</tr>
<tr>
<td>44313</td>
<td>camera and photographic supplies stores (D)</td>
<td></td>
</tr>
<tr>
<td>325992</td>
<td>photographic film, paper, plate and chemical manufacturing (M)</td>
<td></td>
</tr>
<tr>
<td>339942</td>
<td>lead pencil and art good manufacturing (M)</td>
<td></td>
</tr>
<tr>
<td><strong>Heritage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71211</td>
<td>museums (P)</td>
<td></td>
</tr>
<tr>
<td>71212</td>
<td>heritage and historic sites (P)</td>
<td></td>
</tr>
<tr>
<td>71219</td>
<td>other heritage institutions (P)</td>
<td></td>
</tr>
<tr>
<td>71213</td>
<td>zoos and botanical gardens (P)</td>
<td></td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61161</td>
<td>fine arts schools (SS)</td>
<td></td>
</tr>
<tr>
<td>51412</td>
<td>libraries and archives (SS)</td>
<td></td>
</tr>
<tr>
<td><strong>Independent Artists</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71151</td>
<td>independent artists, writers and performers (C)</td>
<td></td>
</tr>
<tr>
<td>51411</td>
<td>news syndicates (C)</td>
<td></td>
</tr>
</tbody>
</table>
Table of Contents:

I. Defining the “Creative Economy”

II. Making the Case

III. Appendices

IV. Glossary

CREATIVITY: BOSTON’S CORE BUSINESS
Creative industries contribute to economic vitality in many ways. They:

- create jobs and income;
- contribute to government revenues (local, state and federal);
- attract industry and skilled workers;
- encourage tourism and conventions;
- highlight a location’s history and traditions;
- enhance property values;
- serve as important anchors for downtown and neighborhood revitalization efforts;
- promote tolerance and diversity.
The “creative industries” economic contribution to the national economy is substantial:

- In the U.S., copyright industries, which include film, video, music, publishing, etc. generate nearly $450 billion in annual revenues, roughly 5% of the U.S. Gross Domestic Product. They contribute more than $79 billion in global sales.

- The number of people who work in these industries is estimated at 7.6 million, growing at a rate that has far outpaced job growth in many other economic sectors.

- The non-profit segment of the creative industries generates $36.8 billion in revenues, $25.2 billion in personal income and 1.3 million fulltime-equivalent jobs (1992).

- Data from the Bureau of Economic Analysis (BEA) show that consumers spent $10.2 billion (or $37.40 per capita) on admissions to performing arts and events in 1999 - $2 billion more than consumer spending on spectator sports.
The Travel Industry Association of America (TIAA) reported that, in 2001, 65% of American adult travelers included a cultural, arts, heritage, or historic activity or event while on a trip of 50 miles or more - represents 92.7 million cultural travelers.

In 2001, 29.6 million travelers lengthened their trips to attend arts, cultural, historic, or heritage activities - an increase from 29% in 1998 to 32% in 2001 of total cultural travelers in the U.S..

These travelers are wealthier (with average annual incomes of $48,000 vs. $37,000 for all other travelers), better educated, and likely to spend more money than other kind of tourists.

Of those 29.6 million travelers who added time:

- 43% added part of one day
- 31% added one extra night
- 19% added two extra nights
- 7% added three or more extra nights
The “creative industries” are also emerging as a potent force in the economic life of cities:

[-] Florida in *The Rise of the Creative Class* concludes that, in order to have a vibrant economy, it is not enough to be technologically savvy. A city must also be socially tolerant and culturally diverse thereby building an environment that can attract and retain the most important resource for a vibrant economy - creative people.

[-] According to Florida, this explains why cities like Baltimore, St. Louis and Pittsburgh fail to grow despite their deep reservoirs of technology and the presence of world-class universities. Because they have not been sufficiently tolerant, creative talent leaves.
It also explains why cities like Miami and New Orleans do not make the grade even though they are lifestyle Meccas - they lack a technology base.

Successful cities like San Francisco, Boston, Austin and Seattle put all 3Ts together - they are truly creative cities.

Boston has the right stuff: the brains and talent to compete, the know-how to patent and license its technology, the entrepreneurs who are willing to take risk and the kind of diverse and tolerant society that attracts and retains creative people.

During the 1990s creative industries and artists gravitated towards three pre-eminent centers of creative activity: Los Angeles, New York and San Francisco. These gains were accompanied by notable specializations in eight other metros: Washington DC, Seattle, Boston, Minneapolis-St. Paul, Orange County, Miami, Portland and San Diego.
Artistic Concentrations for the 29 Largest U.S. Metro Areas by Employment, 2000

Super Centers
- Los Angeles, CA
- New York, NY-NJ
- San Francisco-Oakland, CA

Niche Players
- Washington, DC-MD-VA
- Seattle, WA
- Boston, MA-NH
- Orange County, CA
- Minneapolis-St. Paul, MN
- San Diego, CA
- Miami, FL
- Portland, OR-WA
- Baltimore, MD
- Atlanta, GA
- Chicago, IL
- Newark, NJ
- Dallas, TX
- Phoenix, AZ
- Philadelphia, PA-NJ
- Nassau-Suffolk, NY
- Kansas City, MO-KS
- Denver, CO
- Tampa-St. Petersburg, FL
- San Jose, CA
- Cleveland, OH
- Riverside-Bernardino, CA
- Pittsburgh, PA
- Houston, TX
- Detroit, MI
- St. Louis, MO-IL

Traditionalists
- Denver, CO
- Jacksonville, FL
- Kansas City, MO-KS
- Minneapolis-St. Paul, MN
- Nashville, TN
- Philadelphia, PA-NJ
- Phoenix, AZ
- Sacramento, CA
- San Diego, CA
- San Jose, CA
- Seattle, WA
- St. Louis, MO-IL
- Tucson, AZ
- Dallas, TX
- Detroit, MI
- Phoenix, AZ
- Portland, OR-WA
- San Francisco-Oakland, CA
- Seattle, WA
- St. Louis, MO-IL
- Toledo, OH

Laggers
- Austin, TX
- Birmingham, AL
- Columbus, OH
- Hartford, CT
- Las Vegas, NV
- Long Island, NY
- Madison, WI
- Oklahoma City, OK
- Philadelphia, PA-NJ
- Sacramento, CA
- San Francisco-Oakland, CA
- Seattle, WA
- St. Louis, MO-IL
- Toledo, OH
- Tucson, AZ

Source: Adapted from The Artistic Dividend Revisited, Ann Markusen et.al., March 2004
Boston’s Specialization By Creative Industry Segments


Percentage of Change, 1998–2002

Boston’s Share of State Employment = 17.2%

Source: BRA/Research
Boston’s Specialization By Creative Sub-industries

Boston’s Specialization By Creative Sub-industries

Percentage of Change, 1998–2002

Employment Range

- = 0–99
- = 100–499
- = 500–999
- = 1,000+


Source: BRA/Research
In 2002, Boston’s creative industries added $10.7 billion to Boston’s total economic output (7.8%) and $2.6 billion to personal income within the region as a whole.

Creative employment in 2002 totaled 29,720 direct jobs excluding self-employment. This was 5.5% of Boston’s total private sector employment. When self-employment is added, creative employment increased to 34,085.

The creative economy supports an additional 17,300 jobs in other industries such as retail, business services, professional services, and food services. These spin-off jobs represent a regional employment multiplier of one, that is, for every direct job in the creative sector, one job is created elsewhere.
In 2002, the Creative industries would have been the seventh largest industry in Boston ahead of industries such as Manufacturing, Wholesale Trade, Retail Trade and Construction. For a snapshot of the creative economy see Appendix V.

Total income reached $1.9 billion in 2002 (payroll plus receipts of self-employed).

Boston’s creative industries grew by 11.3% between 1998 and 2002. This compares to 4.5% for the Massachusetts economy as a whole over the same period.

Performing Arts and Heritage have grown most quickly (49.3% and 31.2% over the period 1998-2002). Broadcasting, Independent Arts, Support Services and Applied Arts also showed growth well above the average for the State economy and that of creative industries as a whole (25.1%, 25.0%, 23.6% and 21.9% respectively).
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>131</td>
<td>3,425</td>
<td>$293,126,036</td>
<td>26</td>
<td>-3.1%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Applied Arts</td>
<td>383</td>
<td>4,578</td>
<td>$268,816,520</td>
<td>12</td>
<td>21.9%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Broadcasting</td>
<td>51</td>
<td>4,215</td>
<td>$293,963,656</td>
<td>83</td>
<td>25.1%</td>
<td>16.2%</td>
</tr>
<tr>
<td>Heritage</td>
<td>33</td>
<td>1,839</td>
<td>$53,009,069</td>
<td>56</td>
<td>31.2%</td>
<td>20.6%</td>
</tr>
<tr>
<td>Independent Artists</td>
<td>34</td>
<td>250</td>
<td>$10,766,957</td>
<td>7</td>
<td>25.0%</td>
<td>-36.6%</td>
</tr>
<tr>
<td>Film, Video and Photography</td>
<td>213</td>
<td>1,230</td>
<td>$37,650,220</td>
<td>6</td>
<td>-26.3%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Performing Arts</td>
<td>93</td>
<td>3,806</td>
<td>$174,749,368</td>
<td>41</td>
<td>49.3%</td>
<td>-8.0%</td>
</tr>
<tr>
<td>Publishing and Printing</td>
<td>253</td>
<td>9,465</td>
<td>$625,442,150</td>
<td>37</td>
<td>1.0%</td>
<td>39.1%</td>
</tr>
<tr>
<td>Sound Recording and Music</td>
<td>48</td>
<td>486</td>
<td>$10,882,265</td>
<td>10</td>
<td>-3.1%</td>
<td>24.8%</td>
</tr>
<tr>
<td>Support Services</td>
<td>36</td>
<td>425</td>
<td>$22,304,966</td>
<td>12</td>
<td>23.6%</td>
<td>141.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,275</strong></td>
<td><strong>29,720</strong></td>
<td><strong>$1,790,711,207</strong></td>
<td><strong>23.3</strong></td>
<td>11.3%</td>
<td>20.5%</td>
</tr>
<tr>
<td><strong>Self-employed</strong></td>
<td><strong>4,365</strong></td>
<td><strong>4,365</strong></td>
<td><strong>$119,579,137</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: U.S. Census County Business Patterns; BRA/Research Analysis

✎ Advertising; Film, Video and Photography; Sound Recording and Music lost employment over the period 1998-2002.

Net Job Creation from 1998-2002:
+3,024

Source: U.S. Census County Business Patterns; BRA/Research Analysis
promoters of entertainment events without facility
architectural services
direct mail advertising
cable networks
book publishers
zoos and botanical gardens
cable and other program distribution
musical groups and artists
landscaping architectural services
newspaper publishers
libraries and archives
motion picture and video exhibition
radio broadcasting
interior design services
book stores and news dealers
media representatives
museums
independent artists, writers and performers
display advertising
digital printing
other services related to advertising
art dealers
agents and managers for artists, athletes, entertainers
manufacturing and reproducing magnetic and optical record production
heritage and historic sites
industrial design services
other specialized design services
advertising material distribution services
music publishers - publishing and printing combined
commercial gravure printing
lead pencil and art good manufacturing
musical instrument manufacturing
integrated record production and distribution
theater companies and dinner theater
dance companies
other heritage institutions
book, periodical and newspaper wholesalers
news syndicates
motion picture and video distribution
camera and photographic supplies stores
other performing arts companies
sound recording studios
fine arts schools
musical instrument and supplies stores
other publishers
pre-recorded tape, compact disc and record stores
other printing
photo finishing laboratories (except one hour)
commercial screen printing
photographic film, paper, plate and chemical photographic services
media buying agencies
quick printing
post-production and other motion picture and video
motion picture and video production
graphic design services
video tape and disc rental
television broadcasting
promoters of entertainment events with facility
periodical publishers
advertising agencies

Net Job Creation from 1998-2002:
+3,024

Source: U.S. Census County Business Patterns; BRA/Research Analysis
In 2002, there were 1,275 creative establishments in Boston (see Appendix IV for a synopsis).

These establishments represented 16.9% of all creative enterprises in Massachusetts.

The true proportion of enterprises in the creative industries is likely to be higher as certain industries within its sectors tend to be very small businesses. Non-employer establishments (self-employment) are not included on the graph above.
Nearly 84% of these establishments belong to five sectors: Applied Arts (383 establishments), Publishing and Printing (253 establishments), Film, Video and Photography (213 establishments); Advertising (131 establishments) and Performing Arts (93 establishments).

The creative industries tend to be heavily dominated by micro size businesses in most sectors (see Appendix IV).

The “Creative Production Chain” of Boston’s creative industries is heavily concentrated in the production stage (55.8%) followed by distribution (21.7%) and creation (19.0%).

Of these stages, production and manufacturing decreased during the period 1998-2002. During the same period, wages grew by 25.5% and 47.8% respectively, possibly indicating an increase in productivity.
## Composition of Boston’s “Creative Production Chain”

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation</td>
<td>19.0%</td>
<td>22.6%</td>
<td>$58,123</td>
<td>4.5%</td>
<td>10</td>
</tr>
<tr>
<td>Production</td>
<td>55.8%</td>
<td>1.2%</td>
<td>$68,169</td>
<td>25.5%</td>
<td>21</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>2.1%</td>
<td>-30.0%</td>
<td>$49,477</td>
<td>47.8%</td>
<td>11</td>
</tr>
<tr>
<td>Distribution</td>
<td>21.7%</td>
<td>44.3%</td>
<td>$43,334</td>
<td>28.2%</td>
<td>18</td>
</tr>
<tr>
<td>Support Industries</td>
<td>1.43%</td>
<td>23.6%</td>
<td>$52,521</td>
<td>141.2%</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: U.S. Census County Business Patterns, Massachusetts Department of Employment Training, BRA/Research Analysis
**Linkages with Other Industries:**

- Creative industries have primary linkages with other industries. There are mutually beneficial relationships between Creative Industries, Tourism, Education & Knowledge Creation, and Information Technology.

- Linkages between Creative Industries and Tourism are reciprocal. On the one hand, tourists provide a potential market for many creative industries (live performance, exhibitions, festivals, heritage, etc.) bringing money into Boston’s creative economy. On the other hand, creative industries may be part of a package that attracts tourists in the first place.

- Linkages between Creative industries and Education and Knowledge Creation industries are varied. Creative industries themselves have educational segments. In Boston there are 8 schools devoted to art education and training. Emerson College is the largest with 4,000 students followed by Berklee College of Music (2,734), Massachusetts College of Art (2,328), School of the
Museum of Fine Arts (1,756), New England Conservatory of Music (794), Boston Architectural Center (674), Art Institute of Boston (514) and Boston Conservatory (492).

In 2000, college enrollment in art colleges and universities totaled 13,366 (10% of total enrollment).

The interaction of Creative Industries and Information Technology is also varied, from digital media to web design.

Creative Industries at the Intersection of Economic, Cultural, and Community Development:

Finally, the history of creative development is rich with linkages between culture and place making, community building and economic development:
Arts and culture are often about crossing boundaries, because creativity is about seeing things in new ways. They nurture the process of cross cultural understanding and integration.

The arts have always been a pathway to further civic engagement. As communities grow and demographics shift, creative and cultural activities can be used to find and express shared hopes and values.

Research shows that disadvantaged neighborhoods with higher cultural participation are four times more likely than average to have low delinquency rates.

Communication through the arts and other creative activities gives immigrants a direct way to reclaim and assert their status as respected accomplished adults.

Creative industries contribute to an improved quality of life with consequent impact on local economies.
Creative activities generate new and productive uses for neighborhood facilities and underutilized or abandoned spaces.

A vibrant creative economy further helps the business community and economic development efforts by providing a pool of talent to draw upon for special design, organizational and marketing efforts.

The Creative Economy can have a catalyzing role in downtown and neighborhood development and revitalization efforts:

- Attract additional people and businesses to downtown core;
- Reverse the migration to malls in the outskirts of town;
- Create a more vital “lived in” downtown that doesn’t shut down at the end of the work day;
- Create productive new uses for neighborhood facilities and under-utilized or abandoned spaces.
Table of Contents:

I. Defining the “Creative Economy”

II. Making the Case

III. Appendices

IV. Glossary
Appendix I: Core Industries of the “Creative Economy” as defined by John Howkins

- R&D
- Publishing
- Software
- TV and Radio
- Design
- Music
- Film
- Toys and Games
- Advertising
- Architecture
- Performing Arts
- Crafts
- Video Games
- Fashion
- Art
Appendix II: Richard Florida’s Definition of “Classes”

Creative Class
- Computer and mathematical occupations
- Architecture and engineering occupations
- Life, physical, and social science occupations
- Education, training, and library occupations
- Arts, design, entertainment, sports, and media occupations
- Management occupations
- Business and financial operations occupations
- Legal occupations
- Healthcare practitioners and technical occupations
- High-end sales and sales management

Working Class
- Construction and extraction occupations
- Installation, maintenance, and repair occupations
- Production occupations
- Transportation and material moving occupations

Service Class
- Health care support occupations
- Food preparation and food service-related occupations
- Building and ground cleaning and maintenance occupations
- Personal care and service occupations
- Low-end sales and related occupations
- Office and administrative support occupations
- Community and social services occupations
- Protective service occupations

Agriculture
- Farming, fishing, and forestry occupations
**Key Highlights**

38 Million people are in the “creative class;”

more than 55% of the United States GDP is produced by the “creative class;”

the “creative class” consists of more than 30% of the United States workforce;

driven force behind the “creative class” is economic; people adding value through their creativity;

economic growth occurs in places where creative people of all types live. Matching of people and jobs is done by geographic place rather than through corporations. “City Air makes Men Free” (Stadluft Macht Frei);

instead of people moving to jobs, companies move to places where there is a large pool of skilled and talented workers;

three characteristics of the “creative class:” need for flexibility, prevalence of change, importance of speed;

three values of the “creative class:” Individuality, Meritocracy, Diversity and Openness.

**Service Class:** 55 Million people (45%) of the United States workforce are in the services class. Providing answers to the demands of the creative class. Typically low-wage and low autonomy occupations.

**Working Class:** 33 million people (25%) of the United States workforce are in the working class. Declining sharply, due in part to a shift from the industrial economy, and social and demographic changes.
Appendix III: The New England Council’s Definition of the “Creative Economy”

**Applied Arts**
- Architectural Services
- Interior Design Services
- Industrial Design Services
- Graphic Design Services
- Other Specialized Design Services
- Advertising Agencies
- Display Advertising
- Photographic Services - Commercial

**Performing Arts: Music, Theater, Dance**
- Theater Companies and Dinner Theaters - Commercial
- Dance Companies - Commercial
- Musical Groups and Artists - Commercial
- Other Performing Arts Companies - Commercial
- Musical Instrument and Supplies Stores - Commercial
- Musical Instrument Manufacturing - Commercial
- Promoters of Performing Arts - Commercial
  \(^1\)Nonprofit performing arts

**Visual Arts**
- Art Dealers - Commercial
  \(^1\)Nonprofit Visual Arts
- Camera and Photographic Supplies Stores - Commercial
- Agents and Managers for Artists - Commercial
- Photographic Film, Paper, Plate and Chemical Manufacturing - Commercial
- Lead Pencil and Art Good Manufacturing - Commercial
- Art Print Gravure Printing - Commercial

**Literary Arts**
- Book Publishers - Commercial
  \(^1\)Libraries and Humanities - Nonprofit

**Media**
- Cable and Other Program Distribution
  \(^1\)Nonprofit Media
- Motion Picture and Sound Recording Industry - Commercial
- Prerecorded Compact Disc, Tape and Record Reproducing - Commercial

**Heritage**
- Museums - Taxable
  \(^1\)Nonprofit Ethnic, Historic, Museums
- Historical Sites - Taxable

**Support**
- Fine Arts Schools
  \(^1\)Nonprofit Support and Education

**Independent Artists**
- Independent Artists, Writers and Performers - Incorporated
  \(^1\)Independent Artists, Writers and Performers - Unincorporated

\(^1\)Nonprofit data by product line was compiled by Greg Wassall of Northeastern University and based upon a survey of non-profit arts and cultural institutions in 1996. (from: The Creative Economy Initiative by the New England Council)

The New England Council uses the 1997 US Economic Census, the Current Population
Appendix IV: Establishments by Employment-Size Class by Industry for Boston.

<table>
<thead>
<tr>
<th>Share of Establishments by Employment-size Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>70% Micro (1-9)</td>
</tr>
<tr>
<td>22% Small (10-49)</td>
</tr>
<tr>
<td>7% Medium (50-499)</td>
</tr>
<tr>
<td>1% Large (500 or more)</td>
</tr>
</tbody>
</table>

Source: U.S. Census County Business Patterns; DET; ABI; and BRA/Research Analysis
Appendix IV: Establishments by Employment-Size Class by Industry for Boston (cont.)

**ADVERTISING (2002)**

- Micro (1-9): 2%
- Small (10-49): 30%
- Medium (50-499): 66%
- Large (500 or more): 2%

**APPLIED ARTS (2002)**

- Micro (1-9): 5%
- Small (10-49): 20%
- Medium (50-499): 75%
- Large (500 or more): 0%

Source: U.S. Census County Business Patterns; DET; ABI; and BRA/Research Analysis
Appendix IV: Establishments by Employment-Size Class by Industry for Boston (cont.)

**Broadcasting (2002)**

![Pie chart and bar graph showing employment distribution by size class for broadcasting industry.]

**Heritage (2002)**

![Pie chart and bar graph showing employment distribution by size class for heritage industry.]

Source: U.S. Census County Business Patterns; DET; ABI; and BRA/Research Analysis
Appendix IV: Establishments by Employment-Size Class by Industry for Boston (cont.)

Source: U.S. Census County Business Patterns; DET; ABI; and BRA/Research Analysis
Appendix IV: Establishments by Employment-Size Class by Industry for Boston (cont.)

PERFORMING ARTS (2002)

- Micro (1-9): 70%
- Small (10-49): 18%
- Medium (50-499): 9%
- Large (500 or more): 3%

PUBLISHING AND PRINTING (2002)

- Micro (1-9): 62%
- Small (10-49): 26%
- Medium (50-499): 10%
- Large (500 or more): 2%

Source: U.S. Census County Business Patterns; DET; ABI; and BRA/Research Analysis
Appendix IV: Establishments by Employment-Size Class by Industry for Boston (cont.)

SOUND AND RECORDING (2002)

71% 25% 4% 0%

Source: U.S. Census County Business Patterns; DET; ABI; and BRA/Research Analysis

SUPPORT SERVICES (2002)

73% 19% 8% 0%

Source: U.S. Census County Business Patterns; DET; ABI; and BRA/Research Analysis
Appendix V: Boston’s Creative Economy “Snapshot”

### ADVERTISING SNAPSHOT (2002)

<table>
<thead>
<tr>
<th>Category</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>3,425</td>
</tr>
<tr>
<td>Employment Growth (1998-2002)</td>
<td>-3.1%</td>
</tr>
<tr>
<td>Number of Establishments</td>
<td>131</td>
</tr>
<tr>
<td>Average Wages</td>
<td>$85,578</td>
</tr>
<tr>
<td>Wage Growth</td>
<td>16.6%</td>
</tr>
<tr>
<td>Boston’s State Location Quotient&lt;sup&gt;1&lt;/sup&gt;</td>
<td>2.02</td>
</tr>
</tbody>
</table>

<sup>1</sup> Location Quotient (LQ) measures Boston’s share of employment compared to the State average. An LQ of 1 means that Boston’s share is equal to the State’s.

### TOP 10 EMPLOYERS

Advertise represents 11.5% of Boston’s total creative industry employment.

The Employee to Establishment Ratio for Advertising is 26:1

**Top 10 Employers:**

- Allied Advertising Agency
- Arnold Integrated Solutions
- Clarke Communications Group
- Connelly Partners
- Connelly Partners
- Connelly Partners
- Connelly Partners
- Connelly Partners
- Connelly Partners
- Connelly Partners

**Hair, Holliday, Connors, Cosmopolos**

**Irma S. Mann Strategic Marketing Inc.**

**Kelly Habib John Integrated Marketing**

**Lehman Millet Inc.**

**Modernista**

### SUB-INDUSTRY COMPOSITION BY EMPLOYMENT

- Advertising Agencies: 49%
- Media Buying Agencies: 2%
- Media Representatives: 37%
- Display Advertising: 4%
- Direct Mail Advertising: 6%
- Adver. Material Dist. Serv.: 2%
- Other Advertising Services: 2%

### CHANGE IN EMPLOYMENT (1998-2002)

**1998**

- Advertising Agencies: 2,500
- Media Buying Agencies: 0
- Media Representatives: 0
- Display Advertising: 0
- Direct Mail Advertising: 0
- Adver. Material Dist. Serv.: 0
- Other Services Related to Advertising: 0

**2002**

- Advertising Agencies: 2,000
- Media Buying Agencies: 0
- Media Representatives: 0
- Display Advertising: 0
- Direct Mail Advertising: 0
- Adver. Material Dist. Serv.: 0
- Other Services Related to Advertising: 0

Source: U.S. Census County Business Patterns; DET; ABI; Boston Business Journal 2004 Book of Lists; and BRA/Research Analysis
Appendix V: Boston’s Creative Economy “Snapshot” (cont.)

### Applied Arts Snapshot (2002)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>4,578</td>
</tr>
<tr>
<td>Employment Growth (1998-2002)</td>
<td>21.9%</td>
</tr>
<tr>
<td>Number of Establishments</td>
<td>383</td>
</tr>
<tr>
<td>Average Wages</td>
<td>$58,716</td>
</tr>
<tr>
<td>Wage Growth</td>
<td>14.6%</td>
</tr>
<tr>
<td>Boston’s State Location Quotient$^1$</td>
<td>2.06</td>
</tr>
</tbody>
</table>

$^1$ Location Quotient (LQ) measures Boston’s share of employment compared to the State average. An LQ of 1 means that Boston’s share is equal to the State’s.

### Top 10 Employers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBT Childs Bertman Tseckares</td>
<td>Applied Arts</td>
</tr>
<tr>
<td>CID Associates Incorporated</td>
<td>Applied Arts</td>
</tr>
<tr>
<td>Elkus Manfredi Architects</td>
<td>Applied Arts</td>
</tr>
<tr>
<td>George BH Macomber Co.</td>
<td>Applied Arts</td>
</tr>
<tr>
<td>Goody Clancy &amp; Associates Inc.</td>
<td>Applied Arts</td>
</tr>
<tr>
<td>Jacobs Engineering</td>
<td>Applied Arts</td>
</tr>
<tr>
<td>Payette Associates Inc.</td>
<td>Applied Arts</td>
</tr>
<tr>
<td>Shepley Bulfinch Richardson</td>
<td>Applied Arts</td>
</tr>
<tr>
<td>Spire Printing SVC</td>
<td>Applied Arts</td>
</tr>
<tr>
<td>Bergmeyer Associates</td>
<td>Applied Arts</td>
</tr>
</tbody>
</table>

Applied Arts represents **15.4%** of Boston’s total creative industry employment.

The Employee to Establishment Ratio for Applied Arts is **12:1**

### Sub-industry Composition by Employment

- **Architectural Services**: 79%
- **Landscape Arch. Services**: 9%
- **Interior Design Services**: 6%
- **Industrial Design Services**: 5%
- **Graphic Design Services**: 1%
- **Other Specialized Design**: 1%

### Change in Employment (1998-2002)

<table>
<thead>
<tr>
<th>Industry</th>
<th>1998</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Serv.</td>
<td>1,700</td>
<td>2,000</td>
</tr>
<tr>
<td>Landscape Arch. Serv.</td>
<td>1,000</td>
<td>1,200</td>
</tr>
<tr>
<td>Interior Design Serv.</td>
<td>1,500</td>
<td>1,600</td>
</tr>
<tr>
<td>Industrial Design Serv.</td>
<td>1,000</td>
<td>1,200</td>
</tr>
<tr>
<td>Graphic Design Serv.</td>
<td>600</td>
<td>700</td>
</tr>
<tr>
<td>Other Specialized Design</td>
<td>300</td>
<td>400</td>
</tr>
</tbody>
</table>

Source: U.S. Census County Business Patterns; DET; ABI; Boston Business Journal 2004 Book of Lists; and BRA/Research Analysis
Appendix V: Boston’s Creative Economy “Snapshot” (cont.)

### BROADCASTING SNAPSHOT (2002)

<table>
<thead>
<tr>
<th>Category</th>
<th>Employment</th>
<th>Employment Growth (1998-2002)</th>
<th>Number of Establishments</th>
<th>Average Wages</th>
<th>Wage Growth</th>
<th>Boston’s State Location Quotient¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>4,215</td>
<td>25.1%</td>
<td>51</td>
<td>$69,740</td>
<td>16.2%</td>
<td>1.48</td>
</tr>
</tbody>
</table>

¹ Location Quotient (LQ) measures Boston’s share of employment compared to the State average. An LQ of 1 means that Boston’s share is equal to the State’s.

Broadcasting represents 14.2% of Boston's total creative industry employment.

The Employee to Establishment Ratio for Broadcasting is 83:1.

### Top 10 Employers:

- AT&T Broadband
- WBZ
- Entercom
- WGBX
- Greater Boston Radio Group
- WHDH
- Hemisphere Broadcasting
- WLVI
- WBUR
- WQX

### SUB-INDUSTRY COMPOSITION BY EMPLOYMENT

<table>
<thead>
<tr>
<th>Sub-Industry</th>
<th>Employment %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio Broadcasting</td>
<td>46%</td>
</tr>
<tr>
<td>Television Broadcasting</td>
<td>18%</td>
</tr>
<tr>
<td>Cable Networks</td>
<td>18%</td>
</tr>
<tr>
<td>Cable &amp; Other Program</td>
<td>18%</td>
</tr>
<tr>
<td>Distribution</td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Census County Business Patterns; DET; ABI; Boston Business Journal 2004 Book of Lists; and BRA/Research Analysis
Appendix V: Boston’s Creative Economy “Snapshot” (cont.)

<table>
<thead>
<tr>
<th>HERITAGE SNAPSHOT (2002)</th>
<th>TOP 10 EMPLOYERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>1,839</td>
</tr>
<tr>
<td>Employment Growth (1998-2002)</td>
<td>31.2%</td>
</tr>
<tr>
<td>Number of Establishments</td>
<td>33</td>
</tr>
<tr>
<td>Average Wages</td>
<td>$28,825</td>
</tr>
<tr>
<td>Wage Growth</td>
<td>20.6%</td>
</tr>
<tr>
<td>Boston’s State Location Quotient&lt;sup&gt;1&lt;/sup&gt;</td>
<td>2.35</td>
</tr>
</tbody>
</table>

Heritage represents 6.2% of Boston’s total creative industry employment.

The Employee to Establishment Ratio for Heritage is 56:1

**Top 10 Employers:**
- Franklin Park Zoo
- Isabella Stewart Gardner Museum
- JFK Library and Museum
- Museum of Fine Arts, Boston
- Museum of Science, Boston
- New England Aquarium
- Old State House Museum
- The Children’s Museum
- USS Constitution Museum

<sup>1</sup> Location Quotient (LQ) measures Boston’s share of employment compared to the State average. An LQ of 1 means that Boston’s share is equal to the State’s.

**SUB-INDUSTRY COMPOSITION BY EMPLOYMENT**

![Pie chart showing sub-industry composition by employment]

**CHANGE IN EMPLOYMENT (1998-2002)**

![Bar chart showing change in employment (1998-2002)]

Source: U.S. Census County Business Patterns; DET; ABI; Boston Business Journal 2004 Book of Lists; and BRA/Research Analysis
Appendix V: Boston’s Creative Economy “Snapshot” (cont.)

### INDEPENDENT ARTS SNAPSHOT (2002)

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>250</td>
</tr>
<tr>
<td>Employment Growth (1998-2002)</td>
<td>25.0%</td>
</tr>
<tr>
<td>Number of Establishments</td>
<td>34</td>
</tr>
<tr>
<td>Average Wages</td>
<td>$43,007</td>
</tr>
<tr>
<td>Wage Growth</td>
<td>-36.6%</td>
</tr>
<tr>
<td>Boston’s State Location Quotient</td>
<td>1.15</td>
</tr>
</tbody>
</table>

1 Location Quotient (LQ) measures Boston’s share of employment compared to the State average. An LQ of 1 means that Boston’s share is equal to the State’s.

### TOP 10 EMPLOYERS

- Independent Arts represents 0.8% of Boston’s total creative industry employment.
- The Employee to Establishment Ratio for Independent Arts is 7:1

**Top 10 Employers:**

- Associated Press
- Blackside Inc.
- Boston Bureau Productions
- Business Wire
- Concannon Group
- D.J. Chris Fiore Inc.
- Finish Limited
- Liberty Book II
- P.R. Newswire Association Inc.
- Rich Inc.

### CHANGE IN EMPLOYMENT (1998-2002)

- News Syndicates
- Independent Artists, Writers & Performers

Source: U.S. Census County Business Patterns; DET; ABI; Boston Business Journal 2004 Book of Lists; and BRA/Research Analysis
Appendix V: Boston’s Creative Economy “Snapshot” (cont.)

### Film, Video & Photography Snapshot (2002)

<table>
<thead>
<tr>
<th>Employment</th>
<th>1,230</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Growth (1998-2002)</td>
<td>-26.3%</td>
</tr>
<tr>
<td>Number of Establishments</td>
<td>213</td>
</tr>
<tr>
<td>Average Wages</td>
<td>$30,606</td>
</tr>
<tr>
<td>Wage Growth</td>
<td>13.2%</td>
</tr>
<tr>
<td>Boston’s State Location Quotient¹</td>
<td>0.56</td>
</tr>
</tbody>
</table>

¹ Location Quotient (LQ) measures Boston’s share of employment compared to the State average. An LQ of 1 means that Boston’s share is equal to the State’s.

### Top 10 Employers:

- Blockbuster Video
- Hoyts Cinemas
- Boston Corporate Art
- Hub Video
- Boston Photo Imaging
- Light Sources
- Cabot Corporation
- Rendon Group
- E. Philip Levine Inc.
- WGBH Production SVC

### Change in Employment (1998-2002)

<table>
<thead>
<tr>
<th>Sub-Industry</th>
<th>1998</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camera/Photo Supplies</td>
<td>89</td>
<td>53</td>
</tr>
<tr>
<td>Art Dealers</td>
<td>165</td>
<td>169</td>
</tr>
<tr>
<td>M.P. &amp; Video Production</td>
<td>694</td>
<td>786</td>
</tr>
<tr>
<td>M.P. &amp; Video Distribution</td>
<td>269</td>
<td>372</td>
</tr>
<tr>
<td>M.P. &amp; Video Exhibition</td>
<td>29</td>
<td>22</td>
</tr>
<tr>
<td>Post-Production &amp; other</td>
<td>102</td>
<td>141</td>
</tr>
<tr>
<td>Video Tape &amp; Disc Rental</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Photographic Services</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>Photo Film Manufacturing</td>
<td>33</td>
<td>29</td>
</tr>
<tr>
<td>Art Good Manufacturing</td>
<td>165</td>
<td>167</td>
</tr>
<tr>
<td>Photo Finishing Labs</td>
<td>113</td>
<td>161</td>
</tr>
</tbody>
</table>

Source: U.S. Census County Business Patterns; DET; ABI; Boston Business Journal 2004 Book of Lists; and BRA/Research Analysis
Appendix V: Boston’s Creative Economy “Snapshot” (cont.)

<table>
<thead>
<tr>
<th>PERFORMING ARTS SNAPSHOT (2002)</th>
<th>TOP 10 EMPLOYERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment 3,806</td>
<td>Performing Arts represents 12.8% of Boston’s total creative industry employment.</td>
</tr>
<tr>
<td>Employment Growth (1998-2002) 49.3%</td>
<td>The Employee to Establishment Ratio for Performing Arts is 41:1</td>
</tr>
<tr>
<td>Number of Establishments 93</td>
<td><strong>Top 10 Employers:</strong></td>
</tr>
<tr>
<td>Average Wages $45,909</td>
<td>Aramark</td>
</tr>
<tr>
<td>Wage Growth -8.0%</td>
<td>Blue Man Group</td>
</tr>
<tr>
<td>Boston’s State Location Quotient¹ 2.55</td>
<td>Boston Symphony Orchestra Inc.</td>
</tr>
</tbody>
</table>

¹ Location Quotient (LQ) measures Boston’s share of employment compared to the State average. An LQ of 1 means that Boston’s share is equal to the State’s.

**Change in Employment (1998-2002):**

Source: U.S. Census County Business Patterns; DET; ABI; Boston Business Journal 2004 Book of Lists; and BRA/Research Analysis
Appendix V: Boston’s Creative Economy “Snapshot” (cont.)

<table>
<thead>
<tr>
<th>PUBLISHING &amp; PRINTING SNAPSHOT (2002)</th>
<th>TOP 10 EMPLOYERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment 9,465</td>
<td>Publishing &amp; Printing represents 31.8% of Boston’s total creative industry employment.</td>
</tr>
<tr>
<td>Employment Growth (1998-2002) 1.0%</td>
<td>The Employee to Establishment Ratio for Publishing &amp; Printing is 37:1</td>
</tr>
<tr>
<td>Number of Establishments 253</td>
<td>Top 10 Employers:</td>
</tr>
<tr>
<td>Average Wages $66,078</td>
<td>Acme Bookbinding Company</td>
</tr>
<tr>
<td>Wage Growth 39.1%</td>
<td>Houghton Mifflin Co.</td>
</tr>
<tr>
<td>Boston’s State Location Quotient1 1.64</td>
<td>AOLTWBG</td>
</tr>
</tbody>
</table>

1 Location Quotient (LQ) measures Boston’s share of employment compared to the State average. An LQ of 1 means that Boston’s share is equal to the State’s.

<table>
<thead>
<tr>
<th>SUB-INDUSTRY COMPOSITION BY EMPLOYMENT</th>
<th>CHANGE IN EMPLOYMENT (1998-2002)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book, Periodical &amp; Newspaper Wholesalers 9%</td>
<td>1998</td>
</tr>
<tr>
<td>Book Stores/News Dealers 1%</td>
<td>2002</td>
</tr>
<tr>
<td>Newspaper Publishers 1%</td>
<td></td>
</tr>
<tr>
<td>Periodical Publishers 0%</td>
<td></td>
</tr>
<tr>
<td>Book Publishers 3%</td>
<td></td>
</tr>
<tr>
<td>Other Publishers 1%</td>
<td></td>
</tr>
<tr>
<td>Gravure Printing 2%</td>
<td></td>
</tr>
<tr>
<td>Screen Printing 1%</td>
<td></td>
</tr>
<tr>
<td>Quick Printing 1%</td>
<td></td>
</tr>
<tr>
<td>Digital Printing 1%</td>
<td></td>
</tr>
<tr>
<td>Other Printing 1%</td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Census County Business Patterns; DET; ABI; Boston Business Journal 2004 Book of Lists; and BRA/Research Analysis
Appendix V: Boston’s Creative Economy “Snapshot” (cont.)

<table>
<thead>
<tr>
<th>SOUND &amp; RECORDING SNAPSHOT (2002)</th>
<th>TOP 10 EMPLOYERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment 486</td>
<td>Sound &amp; Recording represents 1.6% of Boston's total creative industry employment.</td>
</tr>
<tr>
<td>Employment Growth (1998-2002) -3.1%</td>
<td>The Employee to Establishment Ratio for Sound &amp; Recording is 10:1</td>
</tr>
<tr>
<td>Number of Establishments 48</td>
<td>Top 10 Employers:</td>
</tr>
<tr>
<td>Average Wages $22,384</td>
<td>Adaptive Networks Inc.</td>
</tr>
<tr>
<td>Wage Growth 24.8%</td>
<td>Bristol Recording Studios</td>
</tr>
<tr>
<td>Boston’s State Location Quotient¹ 1.04</td>
<td>Fantastic Transcripts</td>
</tr>
<tr>
<td></td>
<td>Newbury Comics</td>
</tr>
<tr>
<td></td>
<td>Offtech</td>
</tr>
</tbody>
</table>

¹ Location Quotient (LQ) measures Boston’s share of employment compared to the State average. An LQ of 1 means that Boston’s share is equal to the State’s.

<table>
<thead>
<tr>
<th>SUB-INDUSTRY COMPOSITION BY EMPLOYMENT</th>
<th>CHANGE IN EMPLOYMENT (1998-2002)</th>
</tr>
</thead>
</table>

Source: U.S. Census County Business Patterns; DET; ABI; Boston Business Journal 2004 Book of Lists; and BRA/Research Analysis
Appendix V: Boston’s Creative Economy “Snapshot” (cont.)

**SUPPORT SERVICES SNAPSHOT (2002)**

<table>
<thead>
<tr>
<th><strong>Employment</strong></th>
<th>425</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employment Growth (1998-2002)</strong></td>
<td>23.6%</td>
</tr>
<tr>
<td><strong>Number of Establishments</strong></td>
<td>36</td>
</tr>
<tr>
<td><strong>Average Wages</strong></td>
<td>$52,521</td>
</tr>
<tr>
<td><strong>Wage Growth</strong></td>
<td>141.2%</td>
</tr>
<tr>
<td><strong>Boston’s State Location Quotient</strong></td>
<td>0.77</td>
</tr>
</tbody>
</table>

**TOP 10 EMPLOYERS**

- Support Services represents 1.4% of Boston’s total creative industry employment.
- The Employee to Establishment Ratio for Support Services is 12:1

**Top 10 Employers:**

- Baker Library
- Boston Athenaeum
- Boston Public Library
- Community Music Center of Bos.
- Mugar Memorial Library
- Social Law Library
- Thomas P. O’Neil Jr. Library
- New England Conservatory-Music School of the Museum of Fine Arts
- Snell Library

---

**SUB-INDUSTRY COMPOSITION BY EMPLOYMENT**

- Libraries and Archives: 41%
- Fine Arts Schools: 59%

**CHANGE IN EMPLOYMENT (1998-2002)**

- Libraries & Archives
- Fine Arts Schools

---

1 Location Quotient (LQ) measures Boston’s share of employment compared to the State average. An LQ of 1 means that Boston’s share is equal to the State’s.

Source: U.S. Census County Business Patterns; DET; ABI; Boston Business Journal 2004 Book of Lists; and BRA/Research Analysis
Appendix VI: Technical Note

✦ The primary data for this report are derived from a variety of sources:

✦ Creative activity is calculated as part of existing national accounting schemes, using established industrial classifications;

✦ Employment data, payroll, establishments and growth calculations are derived from the U.S. Census Bureau’s County Business Patterns 1998 and 2002, using the North American Industry Classification System (NAICS);

✦ The County Business Patterns only lists payroll jobs. Data on self-employment within the “creative economy” are from the U.S. Census Bureau’s Nonemployer Statistics for 1998 and 2002;

✦ Information on larger employers comes from the American Business International (ABI) database;

✦ Data on Boston’s Colleges and Universities are from “Connection: Facts 2000,” New England Board of Higher Education;
Appendix VI: Technical Note (cont.)

- Estimates of the size of the non-profit arts industry nationwide are from “Jobs, Arts and the Economy,” published by Americans for the Arts, Washington D.C., 1994;

- Impact estimates were generated using the REMI model - a regionalized version of the U.S. National Input-Output Model. In order to derive multipliers for Boston’s Creative Economy, a special run was performed by the BRA/Research team;

- Between them, these sources offer the ability to draw a quite detailed picture of the “Creative Economy” in statistical terms;

- Finally, current research publications, specialized reports, policy papers and academic studies related to the “creative economy” were reviewed.
Table of Contents:

I. Defining the “Creative Economy”

II. Making the Case

III. Appendices

IV. Glossary
Glossary:

**Creativity** - The process by which ideas are generated, connected and transformed into things that are valued;

**Cultural and Heritage Tourism** - There are as many definitions of cultural and heritage tourism as there are reports on the subject. The most generally accepted definition uses the term as follows: Cultural and Heritage Tourism occurs when participation in a cultural or heritage activity is a significant factor for travelling;

**Location Quotient (LQ)** - The location coefficient measure employment concentration or specialization. It compares employment share (for a specific occupation or industry) in a place with their share in the national economy, MSA, etc.. The location coefficient will be less than one if a particular industry or occupation is under represented, and greater than one if they are over-represented;
Non-employer - A non-employer business is defined by the U.S. Census bureau as one that has no paid employees, has annual business receipts of $1,000 or more and is subject to federal income taxes. Most non-employers are self-employed individuals operating very small unincorporated businesses, which may or may not be the owner’s principal source of income;

North American Industry Classification System (NAICS) - The North American Industry Classification System was developed by representatives from the United States, Canada, and Mexico, and replaced each country’s separate classification systems with one uniform system for classifying industries - [http://www.census.gov/epcd/www/naics.html](http://www.census.gov/epcd/www/naics.html)
Number of Establishments - Generally, an establishment is a single physical location where business is conducted or services or industrial operations are performed. However, for non-employers we count each distinct business income tax return filed by a non-employer business as an establishment. A non-employer business may operate from its owner’s home address or from a separate physical location. Most geography codes are derived from the business owner’s mailing address, which may not be the same as the physical location of the business;