Upstream Chemicals

This cluster manufactures basic organic and inorganic chemicals or gases, in particular separate elements that could be used as inputs for more complex downstream chemical products. The technical report, Metropolitan Chicago’s traded industry clusters, offers extensive data on the characteristics and performance of the Chicago region’s core industrial assets since 2001, available for download at https://cmap.is/Traded-Clusters.

In the Chicago region in 2017, this cluster consisted of

- **$2.1 billion** total output
- **3,100** jobs
- **70** establishments
- **-32%** fewer jobs than national average

Workers in this cluster tend to be **more** racially diverse than the regional labor force.
- **45%** non-white
- **31%** female
- **37%** over age 50

In recent years, the cluster’s competitive position **strengthened** as it remained **unspecialized** in the national context.

<table>
<thead>
<tr>
<th>Chicago</th>
<th>Houston</th>
<th>Philadelphia</th>
</tr>
</thead>
<tbody>
<tr>
<td>+23%</td>
<td>-16%</td>
<td>-54%</td>
</tr>
<tr>
<td>jobs</td>
<td>total output</td>
<td>jobs</td>
</tr>
<tr>
<td>+72%</td>
<td>+79%</td>
<td>+17%</td>
</tr>
</tbody>
</table>

Middle-skill workers have **greater** opportunity than the regional average.

- **$35,762** (25th)
- **$44,843** (50th)
- **$66,434** (75th)

Wage percentiles

- **44%** of workers have an associate’s degree or higher
- **52%** of jobs typically require at least 2 months of on-the-job training

In 2016, this cluster generated approximately **$10.2 billion** in freight shipments that originate, terminate, or circulate regionally.

- **2%** commute by transit
- **58%** Truck
- **17%** Multimodal
- **19%** Rail

Freight mode share, by value

<table>
<thead>
<tr>
<th>Chicago region</th>
<th>Midwest</th>
<th>Rest of U.S.</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>11%</strong></td>
<td><strong>20%</strong></td>
<td><strong>47%</strong></td>
<td><strong>22%</strong></td>
</tr>
</tbody>
</table>

Freight trade geography, by value

Source: CMAP analysis of Economic Modeling Specialists International data (Emsi 2018.4).
Note: Job change is from 2001-17, and total output change is from 2007-17.