PlanIt

Webinar Series for Comprehensive Plan Updates

Economic Data: What’s Out There, And How Can It Enhance The Comp Plan?

Presented by Todd Graham
December 1, 2016
Regional and local economics as a planning concern

- Metropolitan Council’s *Thrive* plan discusses economic competitiveness as key to prosperity

**Economic development**
- Strategies, decisions, investments
- Financial and human resources, technologies, and place readiness
- Regional & local government role: Infrastructure, land, places that enable connections of resources

**Economic competitiveness**
- in global, national markets
- Resulting in business attraction and retention, production and exports

These dynamics allow prosperity
- Great quality of place and infrastructure stewardship are foundations – and results!
Today’s webinar

• A broad scan of economic data at a meaningful scale
  • What’s available at neighborhood or city level?
  • Where to find the data?
  • What questions does it answer?

• Learning objective: Using the data to inform planning in your community
Today’s webinar

• Local employment and local industries
• Workforce in your community
• Commuting and the jobs/workers balance
Local employment and local industries

- Quarterly Census of Employment & Wages (QCEW)
- Local Origin-Destination Employment Statistics (LODES) from Census
- Industry clusters by county at ClusterMapping.us
- Listings of major businesses in your area
- Met Council’s local employment forecasts
Quarterly Census of Employment & Wages

• Data collected by Minnesota DEED
• What’s counted? Jobs with wages/ salaries, counted at worksite locations
• Drill down by location or by industry sector
• 1975-2015, all counties: www.BLS.gov/cew/
• 2000-2015, Minnesota counties and cities: apps.deed.state.mn.us/lmi/qcew/
• 2000-2015, metro area cities: www.metrocouncil.org/data
Quarterly Census of Employment & Wages

• What questions does it answer
  • Number of jobs sited in community
  • Geographic distribution of jobs in the larger area
  • How employment level has grown over time
  • Industry mix of the community
Employment change by community, 2000-2014

www.metrocouncil.org/data
Employment by industry:
Inver Grove Heights, 2015

- Wholesale Trade, 16%
- Retail Trade, 18%
- Construction, 10%
- Health Care and Social Assistance, 9%
- Accommodation and Food Services, 9%
- All Other Industries, 8%
- Educational Services, 8%
- Transportation and Warehousing, 4%
- Manufacturing, 4%
- Administrative and Waste Services, 4%
- Public Administration, 3%
- Other Services, Ex. Public Admin, 2%
- Finance and Insurance, 2%
- Arts, Entertainment, and Recreation, 1%
- Information, 1%
- Real Estate and Rental and Leasing, 1%
- Professional and Technical Services, 0%

www.metrocouncil.org/data
Local Origin-Destination Employment Statistics (LODES) from Census

- Data collected by MN DEED – and combined by Census with demographic details
- What’s counted?
  - Jobs counted at worksite locations
  - Workers counted at home locations
  - Commute flows between home and work
- Geographically detailed to Block level
- 2004-2014, nationwide data: lehd.ces.census.gov/data/
Which to use: LODES or QCEW?

• When to use LODES instead of QCEW
  • When you need greater geographic detail (sub-city)
  • When you want to know demographics of job-holders: age group, race, high or low wage level
  • When you want to know where the workers live

• Limitations of the LODES data
  • Census “fuzzes” exact locations to protect employer identities
  • 2-3 year wait for Census to publish the data

Local employment and local industries

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Identifying job centers with LODES data

- Met Council mapped the employment data
- Identified regional and subregional job centers based on
  - Job density
  - Contiguity of employment
  - Total employment
Regional and Sub-regional Centers
2014
About industries: NAICS

- Data concerning industries use North American Industry Classification System (NAICS)
  - Firms or worksites self-identify their main line of business – that’s their industry
  - Industry can be a highly specific line of business (example: paper products) or may be more summarized (manufacturing)
  - Industry membership is correlated with land use needs, but not perfectly – industries are complex, and real estate needs vary
Industry clusters by county at ClusterMapping.us

- Data can be found here: ClusterMapping.us/region/county/anoka_county_mn/
- Detailed NAICS industries combined into groupings of related industries
  - Shared workflows, supply chains
  - Use of same or similar technologies, skills, resources
- Comparisons across counties or industry clusters: the county’s share of national employment, national ranking, growth
Largest industry clusters, Anoka County, 2014

In Anoka County, “Distribution and Electronic Commerce” has doubled its employment since 2000, and become the largest industry cluster in the county.

ClusterMapping.us/region/county/anoka_county_mn/
Local employment and local industries

Porter model of industry cluster linkages

Dark green: Top 10% industry concentration among US counties

Light green: Top 25% industry concentration

clustermapping.us/region/county/anoka_county_mn/
Local employment and local industries

- Listings of major businesses in your area
  - May be useful for further research
  - Dun & Bradstreet and InfoUSA are private data vendors that sell business listings databases
  - For occasional or one-time use, try the Business Finder tool at CareerOneStop.org: www.careeronestop.org/toolkit/jobs/find-businesses.aspx
Met Council’s local employment forecasts

• Planning for 2040, where will employment grow?
• Met Council’s method: Forecasting where growth will most likely occur, considering starting point situation, geography and accessibility to destinations, land supply, and other local conditions
• The forecast results are useful for regional context
Forecasted employment growth, 2010-2040

• The region will gain 490,000 jobs over 30 years
• The greatest job growth will be in existing centers and places with transportation linkages

www.metrocouncil.org/forecasts/
Met Council’s local employment forecasts

• Community-level forecasts are online: [www.metrocouncil.org/forecasts/](http://www.metrocouncil.org/forecasts/)

• Also TAZ-level forecasts for 3,030 zones: [gisdata.mn.gov/dataset?q=TAZ+forecast](http://gisdata.mn.gov/dataset?q=TAZ+forecast)
  
  • Note: TAZ forecasts are work-in-progress and can be adjusted by local governments during the planning process
• Census’s American Community Survey (ACS)
  • What’s counted? People counted at home locations

• Local Origin-Destination Employment Statistics (LODES) from Census
  • What’s counted? Employed workers counted at home locations
What is the American Community Survey?

• It’s a survey. A sample of a few hundred households per area is sufficient to make generalizations about the population of that area.

• ACS has national extent, designed to allow geographic comparison anywhere in the nation.
Census collects survey responses from a few hundred households in every tract!
What is the American Community Survey?

• It’s a survey. A sample of a few hundred households per area is sufficient to make generalizations about the population of that area.

• ACS has national extent, designed to allow geographic comparison anywhere in the nation.

• ACS includes over 100 questions, covering social, economic, and housing characteristics.

• Its scale and scope make ACS a definitive source for socioeconomic data.
Workforce data from American Community Survey

- Provides age, race, highest level of education, type of college degree, workforce participation, general occupational sector
- Data available from several websites, including www.metrocouncil.org/data
- Most comprehensive for multiple tables and GIS files: National Historical GIS  www.nhGIS.org
- Easiest to use for one-at-a-time tables www.censusreporter.org
Workforce data from American Community Survey

• Every topic in Census ACS has a table ID number
  • Adults by highest level of education: censusreporter.org/tables/C15003/
  • Labor force and unemployment rates: censusreporter.org/tables/B23025/
  • Labor force and unemployment by age group: censusreporter.org/tables/C23001/
  • Employed workers by occupation: censusreporter.org/tables/C24010/
### Table C24010: Sex by Occupation for the Civilian Population

**Show data from this table. Choose a place or summary level**

- **county subdivisions**

in

**Minnesota**

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### Table universe: Civilian Employed Population 16 Years and Over

#### Columns in this table

- **Total:**
- **Male:**
  - Management, business, science, and arts occupations:
    - Management, business, and financial occupations:
      - Management occupations
    - Business and financial operations occupations
  - Computer, engineering, and science occupations:
    - Computer and mathematical occupations
    - Architecture and engineering occupations
  - Life, physical, and social science occupations
  - Education, legal, community service, arts, and media occupations:
    - Community and social service occupations
    - Legal occupations

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**Background on table topics**

- **Topic pages** describe concepts covered by the ACS. For background on the topics in Table C24010, see:
  - **Commute**
  - **Employment**
  - **Age and Sex**

**Detailed table**

The Census offers a version of this table with an expanded set of columns.

**Switch to Table B24010**

- **Total:**
- **Male:**
# Workforce in your community

## Employed workers by occupation

Sex by Occupation for the Civilian Employed Population 16 Years and Over

<table>
<thead>
<tr>
<th>Column</th>
<th>Bloomington city, Hennepin County, MN</th>
<th>Brooklyn Center city, Hennepin County, MN</th>
<th>Brooklyn Park, Hennepin County, MN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management, business, science, and arts occupations</td>
<td>23,189 ±684</td>
<td>7,210 ±393</td>
<td>18.9%</td>
</tr>
<tr>
<td>Management, business, and financial occupations:</td>
<td>6,861 ±423</td>
<td>1,727 ±226</td>
<td>6.1%</td>
</tr>
<tr>
<td>Management occupations</td>
<td>4,175 ±323</td>
<td>477 ±105</td>
<td>2.8%</td>
</tr>
<tr>
<td>Management occupations</td>
<td>2,551 ±252</td>
<td>296 ±94</td>
<td>1.8%</td>
</tr>
<tr>
<td>Business and financial operations occupations</td>
<td>1,624 ±213</td>
<td>181 ±57</td>
<td>1.4%</td>
</tr>
<tr>
<td>Computer, engineering, and science occupations</td>
<td>2,617 ±272</td>
<td>651 ±119</td>
<td>1.6%</td>
</tr>
<tr>
<td>Computer and mathematical occupations</td>
<td>1,632 ±234</td>
<td>345 ±94</td>
<td>9.3%</td>
</tr>
<tr>
<td>Architecture and engineering occupations</td>
<td>872 ±171</td>
<td>248 ±99</td>
<td>9.3%</td>
</tr>
<tr>
<td>Life, physical, and social science occupations</td>
<td>113 ±64</td>
<td>58 ±50</td>
<td>1.1%</td>
</tr>
<tr>
<td>Education, legal, community service, arts, and media Occupations</td>
<td>1,691 ±220</td>
<td>461 ±153</td>
<td>1.1%</td>
</tr>
<tr>
<td>Community and social service occupations</td>
<td>231 ±99</td>
<td>127 ±114</td>
<td>2%</td>
</tr>
<tr>
<td>Legal occupations</td>
<td>352 ±113</td>
<td>23 ±25</td>
<td>10%</td>
</tr>
<tr>
<td>Education, training, and library occupations</td>
<td>648 ±135</td>
<td>190 ±80</td>
<td>4%</td>
</tr>
<tr>
<td>Arts, design, entertainment, sports, and media occupations</td>
<td>460 ±110</td>
<td>121 ±82</td>
<td>3%</td>
</tr>
<tr>
<td>Healthcare practitioners and technical occupations</td>
<td>378 ±123</td>
<td>138 ±85</td>
<td>5%</td>
</tr>
<tr>
<td>Health diagnosing and treating practitioners and other health occupations</td>
<td>261 ±100</td>
<td>42 ±34</td>
<td>2%</td>
</tr>
<tr>
<td>Health technologists and technicians</td>
<td>117 ±61</td>
<td>96 ±71</td>
<td>3%</td>
</tr>
<tr>
<td>Service occupations</td>
<td>3,485 ±404</td>
<td>1,372 ±288</td>
<td>20%</td>
</tr>
</tbody>
</table>
Workforce in your community

Where lawyers, legal professionals live

censusreporter.org/tables/C24010/
About occupation categories

- Government statistics agencies use Standard Occupation Classifications (SOC) to categorize fields of work
- Hundreds of specific occupations
- Census tabulations roll up occupations into major categories
  - 11 managerial and professional categories
  - Sales worker category
  - Office worker category
  - 5 service worker categories
  - 6 blue collar, production worker categories
What ACS tells us about the workforce

- Communities vary. Knowing the workforce will be useful in business recruitment
  - What is the availability of college graduates?
  - What is the occupational make-up of workforce?
- Strength (or scarcity) of workforce specialty usually a result of historical industry presence, or housing market characteristics
- Unemployment or below average labor force participation may be indicators deserving attention
Employed workers by occupation

www.census.gov/censusexplorer/censusexplorer
Local Origin-Destination Employment Statistics (LODES) from Census

• What’s counted?
  • Jobs counted at worksite locations
  • Workers counted at home locations
  • Commute flows between home and work

• Geographically detailed to Block level

• 2004-2014, nationwide data: lehd.ces.census.gov/data/

• OnTheMap interactive data tool: onthemap.ces.census.gov

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Workforce in your community

OnTheMap home area profile: Woodbury

ontheemap.ces.census.gov
Which to use: LODES or ACS?

• LODES has many of the same details as American Community Survey: age group, race, high or low wage level

• When to use LODES instead of ACS
  • When you need detailed custom geography: For example, neighborhoods or zones built up from Blocks.
  • When comparing, side-by-side, workers and jobs: LODES provides both worker counts and job counts that match
Commuting and the jobs/workers balance

- Census’s American Community Survey (ACS)
- Local Origin-Destination Employment Statistics (LODES) from Census
Commuting data from ACS

- Census’s American Community Survey (ACS) has data on means of travel to work and commute time (minutes to work, one-way).
  - Again, ACS available from several websites, including Met Council’s Community Profiles: [www.metrocouncil.org/data](http://www.metrocouncil.org/data)
  - Means of travel to work: [censusreporter.org/tables/C08301/](http://censusreporter.org/tables/C08301/)
  - Travel time to work: [censusreporter.org/tables/B08303/](http://censusreporter.org/tables/B08303/)
Commuting statistics: Plymouth

- In Plymouth, the median commute is 20-24 minutes

www.metrocouncil.org/data
Commuting and the jobs/workers balance

Commuting times of city residents, 2010-14

Source: Census, ACS, 2010-14
Commuting and the jobs/workers balance

Jobs Per Worker Ratio in 5-Mile Radius, 2014

Source: Met Council analysis of Census Bureau, LODES, 2014
Local Origin-Destination Employment Statistics (LODES) from Census

• What’s counted?
  • Jobs counted at worksite locations
  • Workers counted at home locations
  • Commute flows between home and work

• Top 10 origins and destinations in Met Council’s Community Profiles: www.metrocouncil.org/data/

• OnTheMap interactive data tool: onthemap.ces.census.gov
## Commuting patterns for Blaine

### Top ten workplaces of people who live in Blaine

<table>
<thead>
<tr>
<th>Workplaces</th>
<th>Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minneapolis</td>
<td>5,780</td>
</tr>
<tr>
<td>Blaine</td>
<td>3,320</td>
</tr>
<tr>
<td>St. Paul</td>
<td>2,216</td>
</tr>
<tr>
<td>Fridley</td>
<td>1,669</td>
</tr>
<tr>
<td>Coon Rapids</td>
<td>1,416</td>
</tr>
<tr>
<td>Roseville</td>
<td>1,067</td>
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<tr>
<td>Plymouth</td>
<td>870</td>
</tr>
<tr>
<td>Maple Grove</td>
<td>750</td>
</tr>
<tr>
<td>Golden Valley</td>
<td>647</td>
</tr>
<tr>
<td>Brooklyn Park</td>
<td>642</td>
</tr>
<tr>
<td>Other</td>
<td>10,756</td>
</tr>
</tbody>
</table>

### Top ten residences of people who work in Blaine

<table>
<thead>
<tr>
<th>Residences</th>
<th>Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blaine</td>
<td>3,320</td>
</tr>
<tr>
<td>Coon Rapids</td>
<td>1,789</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>1,035</td>
</tr>
<tr>
<td>Lino Lakes</td>
<td>960</td>
</tr>
<tr>
<td>Andover</td>
<td>888</td>
</tr>
<tr>
<td>St. Paul</td>
<td>781</td>
</tr>
<tr>
<td>Ham Lake</td>
<td>746</td>
</tr>
<tr>
<td>Brooklyn Park</td>
<td>536</td>
</tr>
<tr>
<td>East Bethel</td>
<td>488</td>
</tr>
<tr>
<td>Fridley</td>
<td>437</td>
</tr>
<tr>
<td>Other</td>
<td>9,025</td>
</tr>
</tbody>
</table>

Select data to chart:

<table>
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</tbody>
</table>

Note: Workplaces and residences not in the top 10 are counted in "Other".


Download chart data: [Commuteshed - Laborshed](#)
OnTheMap laborshed for workplaces in Blaine, 2014

Commuting and the jobs/workers balance

onthemap.ces.census.gov
OnTheMap laborshed for workplaces in Blaine, 2014, low wage jobs & workers

Commuting and the jobs/workers balance

OnTheMap.ces.census.gov

onthemap.ces.census.gov
Local Origin-Destination Employment Statistics (LODES) from Census

- What questions does LODES answer
  - Where local firms draw their workforce from
  - Where residents are commuting to – that is, can residents find work close to home?
  - Is there a balance of jobs and workers?

- Take aways
  - Good accessibility to employment should result in shorter commutes
  - Relative balance of jobs and workers matters
  - If there’s an imbalance... implications for needed workforce housing – or needed business retention and attraction
Data sources reviewed

- Local employment and local industries
  - QCEW from Minnesota DEED
  - ClusterMapping.us
  - Business lists from D&B or InfoUSA
  - Local forecasts from Met Council
  - LODES from Census

- Workforce in your community
  - American Community Survey from Census

- Commuting and the jobs/workers balance
Today’s webinar

• A broad scan of **economic data** at a meaningful scale
  • What’s available at neighborhood or city level?
  • Where to find the data?
  • What questions does it answer?

• **Learning objective:** Using the data to inform planning in your community
Resources

- [Local Planning Handbook](http://metrocouncil.org/Handbook.aspx)
- [PlanIt](http://www.metrocouncil.org/Handbook/PlanIt.aspx)
- [Data and Maps](https://metrocouncil.org/Data-and-Maps.aspx)
- [Community Profiles](https://stats.metc.state.mn.us/profile/Default.aspx)
Questions?

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Requests for data and reports:
research@metc.state.mn.us
Upcoming Events

PlanIt Comprehensive Planning Conference

Tuesday, December 13, 2016
Earle Brown Heritage Center
6155 Earle Brown Drive
Brooklyn Center, MN
8:00 AM – 5:00 PM