**ITEC 201- Lab: Getting Started**

**Name: Nathan Ketterlinus**

*The objective of this lab is to further introduce us to the some of the themes of the course and to start collecting basic information. Please be sure to take your time with the answers and support your conclusions. To receive full credit, please cite your sources where appropriate (this will help you later on).*

**1.** What areas comprise the Baltimore Metropolitan area?

Anne Arundel County

Baltimore City

Baltimore County

Carroll County

Harford County

Howard County

Queen Anne’s County (Bureau of Labor Statistics, 2008)

**2.** What is a Metropolitan Statistical Area (MSA)?

“Metropolitan Statistical Areas are core based statistical areas (CBSAs) associated with at least one Urban Area that has a population of at least 50,000. The metropolitan statistical area comprises the central county or counties or equivalent entities containing the core, plus adjacent outlying counties having a high degree of social and economic integration with the central county or counties as measured through commuting”(US Census Bureau, 2022).

**3.** List at least 5 website where you can find statistics on the Baltimore Metropolitan area?

Statistical Atlas. (2018, September 14). Household income in the Baltimore area, Maryland (metro area). The Demographic Statistical Atlas of the United States - Statistical Atlas. <https://statisticalatlas.com/metro-area/Maryland/Baltimore/Household-Income#top>

U.S. Bureau of Labor Statistics. (2023, September 25). *Consumer expenditures in the Baltimore Metropolitan Area - 2021-22 : Mid–Atlantic Information Office*. Consumer Expenditures in the Baltimore Metropolitan Area — 2021-22. <https://www.bls.gov/regions/mid-atlantic/news-release/consumerexpenditures_baltimore.htm>

U.S. Bureau of Labor Statistics. (2023a, April 25). *Baltimore-Columbia-Towson, MD - May 2022 OEWS Metropolitan and nonmetropolitan area occupational employment and wage estimates*. May 2022 Metropolitan and Nonmetropolitan Area Occupational Employment and Wage Estimates. <https://www.bls.gov/oes/current/oes_12580.htm>

ProximityOne. (2019). *Situation & Outlook Report*. Situation & Outlook Report -- baltimore-columbia-towson, MD MSA. <https://proximityone.com/cbsa/1/cbsa12580.htm>

*USA: Metropolitan Areas*. Metropolitan Areas (USA): Metropolitan and Micropolitan Statistical Areas - Population Statistics, Charts and Map. (2020). https://www.citypopulation.de/en/usa/metro/

**4.** Using data from the US Census Bureau (<https://www.census.gov/quickfacts/MD>) create a table that compares the following information for three areas of Baltimore’s MSA, be sure to include the data of Maryland (overall) as well to compare. Focus on population, (General population, persons under 5, under 18, over 65) , Living in same house 1 year & over, High school graduate or higher, bachelor’s degree or higher, mean travel time to work, housing units homeownership rate, median household income, persons per household, persons below poverty level

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Pop. (general, < 5, < 18, > 65) (2020) | Same Household >1 year | HS Education | Bachelor’s Degree | Mean travel time to work | Home  ownership rate | Median Household Income | Persons below poverty level |
| Maryland | 6,177,224, 5.7%, 21.8%, 16.9% | 87.7% | 91.0% | 42.2% | 32 min | 67.5% | $98,461 | 9.6% |
| Baltimore City | 585,708, 6.1%, 20.4%, 14.8% | 85.6% | 87.1% | 34.9% | 30.1 min | 47.8% | $58,349 | 19.6% |
| Columbia | 104,681, 5.5%, 21.0%, 16.3% | 85.9% | 95.6% | 63.6% | 29.6 min | 64.3% | $124,537 | 7.6% |
| Towson | 59,553, 4.2%, 17.5%, 18.3% | 80.8% | 96.2% | 66.9% | 26.2 min | 57.5% | $98,425 | 11.6% |

**5.** Do you notice any trends or anything significant between the areas? Explain.

The larger a city is, the longer commute times are. This is probably due to a combination of more congestion on roads, and a larger physical distance between residences and workplaces.

Baltimore City is much less educated, owns proportionally less property, makes less money, and is statistically in the most poverty. This could be due to a “brain drain”-esque effect where people who do get educated in Baltimore generally emigrate to places with better job prospects and infrastructure.

Towson has the lowest percentage of its population in stable housing environments. Honestly, I think this is due to TU having most of its residents in 9-month housing, skewing the data.

**6.** In your own words describe several of the major problems Baltimore City or Baltimore County has to deal with. Are these related in some way to infrastructure? Can using technology improve or alleviate any of these problems? (Support your answer).

In my opinion, Baltimore’s biggest issue is its lack of high-paying jobs. This is of course directly related to lower levels of education. Baltimore needs to take steps to not only retain the population it educates, but also to attract educated people from other parts of the country/ world. One way to accomplish this would be to improve the infrastructure of the city and encourage technical employers to hire in the area. Using methods to reduce pollution would go a long way in increasing the appeal of the city. This can be done by implementing things like smart trash cans, technology to limit emissions from factories in the area, and optimized trash collection and disposal routes and facilities. In addition, the continued expansion of public transit in the city can help not only reduce pollution, but also commute times, making the city more attractive to prospective employees.

**7.** What technologies do you feel could be beneficial as the Baltimore Metro area grows?

As touched on above, I believe that smart waste management solutions and improved public transit are great first steps in improving the BMA. Furthermore, the introduction and upkeep of more parks and recreational areas (or third places), will do wonders for the happiness of citizens. By using technology to create a more appealing city, the hope is to attract high skilled employees to take high skilled jobs, alleviating Baltimore’s issue of brain drain, which is leading to a crippling infrastructure across the board.

**8.** Thinking about the Towson University Campus (particularly if you live on campus), What could be improved by technology?

Some of the biggest issues I run into as a student that lives on campus deal with long lines. For example, it can take up to 45 minutes to order food at some places in the union from just waiting in line, like chick-fil-a or paws at the wrong time of day. Steps are already in place to address this with GrubHub ordering, but this is not being utilized to its full capacity by students who fear their food being stolen or are unaware of the technology in the first place. In addition, the architecture of campus has many bottlenecks that lead to inefficient navigation. While not explicitly a technology issue, places like the main entrance to 7800 York Road or the sidewalk between 7800 York Road and the towers (where most of the on-campus population lives), prove to be challenging to navigate in between classes. These can both be addressed by adding a wider, automatic entrance and a wider sidewalk respectively.

**9.** List several public services that a city would generally provide to its residents. Explain.

Cities generally provide many services to residents, including but not limited to:

* Police Department: someone must enforce the rules the city puts into place.
* Fire Department: while fire departments used to be private, I’m sure cities generally found it more effective to run fire departments themselves.
* Waste Management: In public places, unless the city is outsourcing to a private company, waste is generally handled by a dedicated city funded staff.
* Road Maintenance: Government funded roads are the government’s responsibility to maintain.
* Parks and Recreation: Cities want their citizens to be happy and to make their city attractive to tourists/ future residents.
* Education: K-12 education is offered to all citizens in the US.

References

Bureau of Labor Statistics. (2008, April 28). *Mid-Atlantic Information Office*. Baltimore-Towson Metropolitan Area Job Count in March 2008 Rose by 8,900 Over the Year. <https://web.archive.org/web/20080922031239/http://www.bls.gov/ro3/cesqbalt.htm>

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