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AGENDA

- Introductions
- History of Broadband Gap in Washtenaw County
- Project Overview: Broadband Data Collection
- Presentation of Findings
Citizen Scientist K-12 Data Collection Pilot Study
Three school districts, representing more than 3,258 students, were chosen as pilots for the Michigan Moonshot broadband data collection project.

Broadband and Student Performance Gap Research Findings Report
A lack of broadband access negatively impacts student performance, GPAs, standardized test scores and the likelihood that they will attend higher education.

Washtenaw County Broadband Task Force Data Collection Project
The Michigan Moonshot partnered with the Washtenaw County Broadband Task Force in a connectivity data collection project. This effort created a granular broadband map of 16 townships and 31,195 homes to contribute to grant application efforts.
OUR GOALS & DESIRED OUTCOMES

- Quantifying availability and demand
- Produce unbiased, granular and accurate household broadband access maps & visualizations including served and unserved residences and businesses
- Produce data to inform infrastructure investment and to challenge 477 maps for federal funding
- Outputs include: Executive summary, visualizations (maps/charts), merged databases, GIS files
• 31,195 Parcel IDs surveyed
• Response rate: 23%
• Online responses: 70%
• Mail responses: 30%
## Participation of Community Population

<table>
<thead>
<tr>
<th>Township/City</th>
<th>No. of Parcels</th>
<th>Survey Responses</th>
<th>Response %</th>
<th>Fraction with No Broadband</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom Township</td>
<td>631</td>
<td>205</td>
<td>32.49%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Manchester Township</td>
<td>1064</td>
<td>316</td>
<td>29.70%</td>
<td>99.68%</td>
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<tr>
<td>Lima Township</td>
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<td>444</td>
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<td>86.49%</td>
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<tr>
<td>Sharon Township</td>
<td>753</td>
<td>204</td>
<td>27.09%</td>
<td>98.04%</td>
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<tr>
<td>Lodi Township</td>
<td>2179</td>
<td>574</td>
<td>26.34%</td>
<td>65.16%</td>
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<tr>
<td>Bridgewater Township</td>
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<td>182</td>
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<td>99.45%</td>
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<tr>
<td>Sylvan Township</td>
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<td>321</td>
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<tr>
<td>Ann Arbor Township</td>
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<td>340</td>
<td>24.94%</td>
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<tr>
<td>Webster Township</td>
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<td>671</td>
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<td>52.76%</td>
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<td>Dexter Township</td>
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<td>Saline Township</td>
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<td>17.65%</td>
<td>79.63%</td>
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<tr>
<td>Augusta Township</td>
<td>2840</td>
<td>342</td>
<td>12.04%</td>
<td>61.99%</td>
</tr>
</tbody>
</table>
Visualizations
- Maps
- Graphs
- Charts

Executive summary & analysis

GIS export

Fully merged & cleaned database
DEFINITION OF BROADBAND

Broadband internet is defined by the FCC as a fixed connection that provides **a minimum of 25 Mbps download and 3 Mbps upload**. Broadband service provides users with internet fast enough for video conferencing, schoolwork, telemedicine applications, video streaming, and more.
EXECUTIVE SUMMARY OF DATA COLLECTION
FCC COVERAGE DATA

BROADBAND DENSITY PER CENSUS BLOCK

- Municipal boundary
- No broadband (no connection or internet with speeds less than 25/3)
- Has broadband

WASHTENAW BROADBAND DATA COLLECTION EXECUTIVE FINDINGS REPORT
WASHTENAW BROADBAND RESULTS

BROADBAND DENSITY PER CENSUS BLOCK

- Red: 0-10% has broadband
- Light Pink: 10-50% has broadband
- Cyan: 50-90% has broadband
- Dark Blue: 90-100% has broadband

Map is based on the survey results (and not a census of all the households in the area).
The differences between coverage reported by the FCC and data from this survey are drastic. This study demonstrates that:

61% fewer homes have access to broadband internet speeds
29% fewer homes have some connectivity at speeds lower than broadband
32% more homes have no internet connectivity whatsoever
**OTHER DATA GAINED**

**POORLY CONNECTED USERS:**
- 33% were willing to pay $75/month or more for 100 Mbps
- 33% were willing to spend $50/month or less

**USERS WITH BROADBAND:**
- 23% of users were willing to spend $75/month or more
- 46% of users were willing to spend $50/month or less

78% of residents were willing to switch to a new internet service provider.

66% of residents felt there were not sufficient internet service provider options at their homes.
HOMEWORK GAP

Of responding households with K12 students:
57% lack broadband access
81% feel there are not sufficient provider options
Lack of fast broadband access at home

- Lower grades, lower digital skills, lower PSAT/SAT test scores
- Lower interest in postgraduate education and STEM/STEAM careers

Community impact of lack of broadband

- Lower digital skills of local workforce
- Lower attractiveness as business location
- Lower community resilience