Rush County Broadband Taskforce Update & Household Survey Results

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July 11th, 2019
Rush County Broadband Taskforce

Vision: Every home/business in Rush County has affordable, adequate, and reliable internet access.

Mission: Work with providers, community leaders, organizations and residents to improve internet access and digital literacy throughout Rush County
Taskforce progress to date

- Create a communication plan, including Facebook page
- Met with providers one-on-one
- Scheduled and attended a provider’s meeting
- Obtained city and county endorsements through formal resolutions
- Formalized partnership between Extension and Open Book learning center to conduct digital training for businesses
- Conduct household survey
Survey Data Gathering

- Objective of Rush County Connect Broadband Task Force
- Validate broadband access and document demand aggregation
- Data was collected during late April through mid-June 2019
- Survey available online
- Paper copy versions were distributed through
  - Extension, Library, Schools
  - Courthouse, City Hall
  - Hospital, Banks, Foundation
Results

- 516 surveys received overall (65 paper copies)
- 512 valid responses
- 445 mapped (67 did not give permission or did not answer)
Survey Responses
Have internet access at home?

- Yes: 87.7%
- No: 12.3%

n = 511
Main reason not using internet

Don’t see need for it: 3.2%
Not available in my area: 38.7%
Internet too slow: 6.5%
Service unreliable: 4.8%
Too expensive: 30.6%
I use the internet somewhere else: 3.2%
Other: 12.9%

n = 62

Don’t have a computer & trees get in the way.
How do you access the internet?

- Cellular data plan: 16.1%
- DSL: 24.9%
- Cable: 24.9%
- Fiber-optic: 1.5%
- Fixed Wireless: 22.9%
- Satellite: 9.0%
- Dial-up: 0.0%
- Not sure: 0.7%

n = 410
How much do you pay?

- Less than $20: 69.7%
- $20-$34.99
- $35-$49.99
- $50-$74.99
- $75 or more

n = 366
Monthly cost
## Median Download/Upload Speeds

<table>
<thead>
<tr>
<th></th>
<th>Download (Mbps)</th>
<th>Upload (Mbps)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average</strong></td>
<td>19.73</td>
<td>18.08</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>5.60</td>
<td>1.92</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>0.09</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>462.40</td>
<td>920.00</td>
</tr>
<tr>
<td><strong>n</strong></td>
<td>231</td>
<td>227</td>
</tr>
</tbody>
</table>

n range: 227-231
Met 25/3 FCC criteria
Number of devices at home

n = 512

- None: 11.7%
- One: 5.5%
- Two: 5.5%
- Three: 8.0%
- Four: 16.8%
- Five: 20.7%
- Six: 16.6%
- Seven: 13.9%
- Eight: 1.4%

Total: 69.3%
Is this a home-based business?

![Bar chart showing the distribution of home-based businesses.]

- Yes: 15.2%
- No: 84.8%

n = 508
Work from home if better connected?

Yes: 62.4%
No: 37.6%

n = 436
Work from home
### Age of potential users at home

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>School age child (K-8th grade)</td>
<td>18.1%</td>
</tr>
<tr>
<td>High School age child (9th-12th grade)</td>
<td>12.1%</td>
</tr>
<tr>
<td>Ages 19-25</td>
<td>12.0%</td>
</tr>
<tr>
<td>Ages 26-45</td>
<td>22.8%</td>
</tr>
<tr>
<td>Ages 46-65</td>
<td>24.1%</td>
</tr>
<tr>
<td>Ages 66 or older</td>
<td>10.8%</td>
</tr>
</tbody>
</table>

- **42.3%** 25 or younger (digital natives)

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*Note: n = 965*
Maximum willing to pay?

- Less than $25: 9.3%
- $25-$39.99: 15.5%
- $40-$49.99: 23.6% (46.1%)
- $50-$59.99: 22.5%
- $60-$69.99: 13.7%
- $70 or more: 15.5%

n = 453
How satisfied are you with service?

- 53.5% Unsatisfied
- 43.5% Satisfied

n = 409
Who is unsatisfied?

Monthly Cost (n=365)

- Less than $20 (n=9): 34.4% Unsatisfied, 55.5% Satisfied
- $20-$34.99 (n=25): 60.0% Unsatisfied, 36.0% Satisfied
- $35-$49.99 (n=76): 51.3% Unsatisfied, 47.4% Satisfied
- $50-$74.99 (n=139): 48.9% Unsatisfied, 49.6% Satisfied
- $75 or more (n=116): 61.2% Unsatisfied, 35.3% Satisfied

Purdue University
Center for Regional Development
Extension
Who is unsatisfied?

Age Groups (n=850)

- K-8th grade (n=108): 54.6% Satisfied, 42.6% Unsatisfied
- 9th-12th grade (n=190): 53.7% Satisfied, 44.2% Unsatisfied
- 19-25 (n=201): 52.7% Satisfied, 43.7% Unsatisfied
- 26-45 (n=95): 55.8% Satisfied, 41.0% Unsatisfied
- 46-65 (n=151): 47.1% Satisfied, 48.3% Unsatisfied
- 66 or older (n=105): 52.4% Satisfied, 43.8% Unsatisfied

Satisfied | Unsatisfied
Who is unsatisfied?

Willing to Pay (n=389)

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Satisfied</th>
<th>Unsatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $25 (n=26)</td>
<td>42.3%</td>
<td>57.7%</td>
</tr>
<tr>
<td>$25-$39.99 (n=47)</td>
<td>34.0%</td>
<td>66.0%</td>
</tr>
<tr>
<td>$40-$49.99 (n=95)</td>
<td>40.0%</td>
<td>60.0%</td>
</tr>
<tr>
<td>$50-$59.99 (n=98)</td>
<td>45.9%</td>
<td>54.1%</td>
</tr>
<tr>
<td>$60-$69.99 (n=55)</td>
<td>50.9%</td>
<td>49.1%</td>
</tr>
<tr>
<td>$70 or more (n=68)</td>
<td>41.1%</td>
<td>58.9%</td>
</tr>
</tbody>
</table>

Percentages of satisfied and unsatisfied individuals across different income ranges.
Who is unsatisfied?

Homebased Business (n=407)

- Yes (n=64): 46.9% Satisfied, 54.5% Unsatisfied
- No (n=343): 42.8% Satisfied, 57.2% Unsatisfied
Who is unsatisfied?

<table>
<thead>
<tr>
<th>Telework? (n=348)</th>
<th>Yes (n=213)</th>
<th>No (n=135)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied</td>
<td>36.6%</td>
<td>51.1%</td>
</tr>
<tr>
<td>Unsatisfied</td>
<td>60.1%</td>
<td>46.6%</td>
</tr>
</tbody>
</table>

Center for Regional Development  Extension
Who is unsatisfied?

Number of Devices (n=409)

- None (n=19)
  - Satisfied: 68.4%
  - Unsatisfied: 31.6%

- One to four (n=144)
  - Satisfied: 42.3%
  - Unsatisfied: 52.0%

- Five or more (n=246)
  - Satisfied: 39.8%
  - Unsatisfied: 56.1%
Who is unsatisfied?

![Bar graph showing the satisfaction levels of different broadband technologies.

- Satellite (n=37): 70.3% satisfied, 27.0% unsatisfied
- Cellular data plan (n=65): 70.7% satisfied, 26.2% unsatisfied
- DSL (n=102): 74.5% satisfied, 23.6% unsatisfied
- Fixed Wireless (n=94): 35.1% satisfied, 64.9% unsatisfied
- Cable (n=102): 37.3% satisfied, 56.9% unsatisfied
- Fiber-optic (n=6): 100.0% satisfied, 0.0% unsatisfied

Satisfied | Unsatisfied
---|---
27.0 | 70.3
26.2 | 70.7
23.6 | 74.5
64.9 | 35.1
56.9 | 37.3
100.0 | 0.0

Source: Center for Regional Development, Purdue University Extension.
No access + unsatisfied
## Data Validation

<table>
<thead>
<tr>
<th></th>
<th>FCC</th>
<th>Microsoft</th>
<th>Rush County Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>% homes with access to 25/3 Mbps</td>
<td>56.3</td>
<td>8.3</td>
<td>18.2</td>
</tr>
<tr>
<td>% people using at 25 Mbps</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% homes using at 25/3 Mbps</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Main takeaways ...

- Households aware of importance of internet
- Majority of homes surveyed had access
- Quality of service issue
- Current users: more than half unsatisfied
- Non adopters: unavailable, unreliable or expensive
- Demand potential exists (home businesses, work from home, age & number of devices)
- Sweet spot is between $40 and $59.99 per month
Contact Information

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