Future of Transit
Through a Generational Lens

John W. Martin, SIR

Born in the U.S.A

Source: Census Bureau
What’s a generation?

- Age cohort: 18- to 20-year span
- Big events create the “bookends”
- Born on the leading and tail edge—“cuspers”

What’s your generation?
Silent Generation
1929–1945
71–87 years old

Boomers
1946–1964
52–70 years old
Gen X
1965–82
34–51 years old

Millennials
1983–2001
15–33 years old
Understanding generations

The different generations have different views of work, money, duty & responsibility
Culture’s impact

Defining events

Who we are

Generational values

Silent Generation
1929–1945
71–87 years old

Who we are

Generational values

Defining events

Culture’s impact

Silent Generation
1929–1945
71–87 years old
Generational values
- Dedication and sacrifice
  - Hard work
  - Patience
- Respect for authority
  - Duty before pleasure
- Honor

Culture’s impact: Silent Generation

Defining events
- Great Depression
- The New Deal
- Lindbergh’s flight
- Gone with the Wind
- Pearl Harbor
- WWII
- Hiroshima

Silent’s orientation:
SELFLESS
Boomers
1946–1964
52–70 years old

Culture’s impact: Boomers

Defining events
- Birth of TV
- Prosperity
- Cold War
- Political assassinations
- Watergate
- Rock ‘n roll
- Growth of suburbia
- Women’s lib
- Civil rights
- Vietnam

Driven
Transformational
“Self” centered

Generational values
- Personal gratification
- Entitlement
- Control
- Work ethic
- No to status quo
- Optimism
Next up: Transforming growing older

The Boomer “curve of life”

0 50 100

BOOMERS
Boomers’ orientation:

“SELF”-CENTERED

Gen X
1965–82
34–51 years old
Gen Xers and TRUST

Culture’s impact: Gen X

Defining events
- Reagan
- Single parents
- Latchkey kids
- MTV
- AIDS
- Computers
- Challenger
- Glasnost
- Berlin Wall

Risk-takers
- Skeptical
- Independent
- Task-driven

Generational values
- Technosavvy
- Think globally
- Self-reliance
- Diversity
- Pragmatic

Question wording: “Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?”
Source: General Social Survey data, 1987-2012
Pew Research Center
Gen Xers:
The most unsupervised generation in history

- Born during anti-child phases of history, ’65–’82
- Grew up with permissive parenting habits

GEN Xers have always had information at their FINGERTIPS
Gen Xers’ orientation:

SELF-RELIANT

Millennials
1983–2001
15–33 years old
Generations and “Selfies”

% saying they have shared a selfie

<table>
<thead>
<tr>
<th>Generation</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millennial</td>
<td>55</td>
</tr>
<tr>
<td>Gen X</td>
<td>24</td>
</tr>
<tr>
<td>Boomer</td>
<td>9</td>
</tr>
<tr>
<td>Silent</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Pew Research, 2014

Culture’s Impact: MILLENNIALS

Co-dependent

Purposeful

Ambitious

Defining Events

- Internet/Social Media
- School violence
- Over-involved parenting
- Multi-culturalism
- 9/11attacks
- Gulf War(s)
- “Fame-ification”
- Great Recession
- Technology ++

Generational Values

- Confidence plus
- Civic duty
- Achievement
- Hyper connected
- Multi-tasking on steroids
- Fearless
Culture’s Impact: MILLENNIALS

Defining Events
- Internet/Social Media
- School violence
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Generational Values
- Confidence plus
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  - Achievement
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Co-dependent
- Purposeful
- Ambitious

How They Were Raised

How They Are Wired
67% of Millennials were born to Boomers who were determined to “do parenting right.”

Culture’s Impact: MILLENNIALS

Defining Events
- Internet/Social Media
- School violence
- Over-involved parenting
- Multi-culturalism
- 9/11 attacks
- Gulf War(s)
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Co-dependent
Purposeful
Ambitious

Generational Values
- Confidence plus
- Civic duty
- Achievement
- Hyper connected
- Multi-tasking on steroids
- Fearless
Hyper-Connected

The wisdom of MANY is better than the thoughts of FEW
They feel they are being groomed to create a better future

Millennials’ orientation: COLLECTIVE SELF
New Expression of Community

A New Hub – Shared Place
Understanding
Generationally-Inspired
Trends Reshaping Transit

TEN SHIFTS
RESHAPING
TRANSIT
Demographic
Cultural / Societal
Transport / Mobility

Your Future
Implication for Transit Operators
Demographic
Cultural / Societal
Transport / Mobility

Shift #1
Growing Population
Michigan Population Impact

Boomers | Gen X-ers | Millennials

U.S. Population

Today
324 Million

2030
358 Million

Source: U. S. Census Reports
2015 Michigan had net domestic migration loss - 40K People. More people left than moved in. 6th highest in country.

Source: U.S. Census
Shift #2

The Rise Of Activity Centers

Your Future

Must Maintain or Grow Mode Share Or Help Attract More People
Growing Activity Centers Means More Pockets of Density. In turn, Greater Traditional Transit Efficiency and Success.
Activity Center Impact

Millennials are ushering in a new sense of COMMUNITY
88% Want to Live in Urban Settings

Your Future
Must Help Michigan’s Activity Centers Become Even More Attractive To Millennials
Shift #3
Falling HH Income

US HH Incomes Are Off
Middle-Class Incomes Have Fallen Since 1999
A middle-income American family makes less than at the turn of the century.
Median household income, in 2014 dollars

Shaded areas indicate recessions.
Source: Census Bureau
Michigan HH Incomes Are Off

59% Of Moderate Income Household Income Goes To Annual Housing & Transportation Cost

Combined Cost Burdens for Moderate-Income Households vs. Other Income Brackets (25 Largest Metro Areas)

H+T = 59%
Income Impact

1/3

Millennials under-employed

“The Lost Decade”
Millennials hit across all educational levels

FIGURE 3-
Poverty has risen among young adults across educational levels
Poverty rate of 25-34 year olds with high school diploma or higher by educational attainment, 1968–2013

Note: Some college variables in the Current Population Survey did not do tiny whether people with some college had an A.A. degree.
The “Wealth Gap”

1989

62+ year olds

14.8X

2013

40 and under

62+ year olds

7.5X

40 and under

Source: Federal Reserve Bank

Your Future

Economic Realities Will Continue To Drive Demand For Lower Cost Transportation
Shift #4
The Coming Age Wave

Boomers Are Creating An Older America
The Population Age Pyramid

U.S. - Life Expectancy

1900: 47
2010: 80
Average Children Per Woman

![Graph showing the average children per woman from 1927 to 2007. The graph peaks at 3.7 in 1967 and drops to 2.1 by 2007.]

Five generations alive today

- **Silent**: 1929–1945
- **Boomer**: 1946–1964
- **Gen X**: 1965–1981
- **Millennial**: 1982–2001
- **Gen Z**: 2001–2016

![Images of people representing each generation with populations indicated: Silent (30,000,000), Boomer (70,000,000), Gen X (75,000,000), Millennial (80,000,000), Gen Z (60,000,000).]
Source: U.S. Census Bureau

1960

Source: U.S. Census Bureau

2030

Source: U.S. Census Bureau
1960 vs. 2030

Source: U.S. Census Bureau
In the U.S. the population over age 65 will grow from 29.8 million today to 72 million by 2033.
Michigan’s Population Headed to Over 20%

60+ Segment

Boomers Want To Age In Place
“Age In Community” – Just Downsize

15-Minute Livable Community
Your Future
Growing Opportunity
To Provide Mobility Options

Demographic
Cultural / Societal
Transport / Mobility
Shift #5
Graying Workforce

Battle To Attract Young People
Age Shift Impact On The Future Workforce Pipeline?

The 25-54 Segment Not Expecting Significant Growth

Labor Participation Rates (in millions)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2012</th>
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<td>103,195</td>
<td>+1.9%</td>
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<td>18,462</td>
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% Change:
- 55+: +28.8%
- 25-54: +1.9%
- 16-24: -13.3%

More Older Workers

Labor Participation Rates (in millions)

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The Battle Will Pick Up For Younger Workers

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The New Economic Development Model

**Old Model**
- Recruit Big Companies
- People Follow Companies
- Community Grows

**New Model**
- Build Sense of Place and Community
- People Will Flock to It
- Businesses Will Grow From Within and Others Will Come

66%

Millennials place high-quality transportation in their top three concerns when evaluating a new place to live

Source: Rockefeller Foundation
75% Millennials believe they will live in a place that does not require a car

Source: Rockefeller Foundation

“For me this choice has almost nothing to do with being anti-car. Instead, it’s about all the other things a "non-car life" represents - it helps me be more environmentally conscious, socially aware, and local.”

- Millennial
15-Minute Livable Community

“As with many other things, our younger folks are more inclined to be Metro-accessible and more urban.”

Arne M. Sorenson
Chief Executive
Your Future
Growing Need
For Mobility
Options To Create And
Connect 15-Minute
Livable Communities

Your Future
Growing Importance
of Transit As Part of
Your Region’s Econ.
Development
Shift #6
Growth of the Distributed Workforce

Gen Xers Redefining How We Work
Distributed Workforce

Use of Telework In Virginia
Increased 84%

2007: 4.5%
2015: 8.3%

2007 and 2015 Telephone Q15: Now thinking about LAST week, how did you get to work each day .. ?
Use of **Telework** Has Increased

Telework at Least Occasionally

19%

12%

2007

2015

103

2007 and 2015 Telephone Q13: Now I want to ask you about telecommuting, also called teleworking. For the purposes of this survey, "telecommuters" are defined as "wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day, instead of traveling to their regular work place." Based on this definition, are you a telecommuter?

Telework at Least Occasionally

**Va. Teleworkers**

2007: 438,000

2015: 729,000

104

2007 and 2015 Telephone Q13: Now I want to ask you about telecommuting, also called teleworking. For the purposes of this survey, "telecommuters" are defined as "wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day, instead of traveling to their regular work place." Based on this definition, are you a telecommuter?
1. Technology-Enabled

2. Meet The New Boss
Gen Xers’ Orientation:

Self-reliant Free-agent

Gen X

What about your job do you enjoy most?

“The freedom I have at my job so that I can get my job done in a timely manner.”

“There is no need for micro-management. And I am allowed to implement my ideas and/or opinions.”

“Being able to do my job without any hassles.”

Source: SIR National Employee-Employer Study
Management Style No Longer Tied To Place

Office Square Footage Per Worker

225 sq. ft. 176 sq. ft.

2010 Today

Source: CoreNet Global
The Future?

225 sq. ft. 176 sq. ft. <100 sq. ft.

2010 Today Future

Source: CoreNet Global

Corporate Strategy – Distributed Workforce

1/5 1/3 1/2

1990s Today 2020

Source: SIR
Freelance Economy

“The Invisible”
Or
“The 1099 Economy”

Your Future
Reduced Need
For Work-related Mobility
Shift #7
Advance of The Equity Movement

New “We” Mentality – Everyone Deserves Mobility
US HH Incomes Are Off

Middle-Class Incomes Have Fallen Since 1999
A middle-income American family makes less than at the turn of the century.

Median household income, in 2014 dollars

U.S. Poverty

Number of People: 46M

Rate 12% to 15%

Source: U.S. Census Bureau.
Mean household income by ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Mean Household Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian alone</td>
<td>$ 90,725</td>
</tr>
<tr>
<td>White</td>
<td>$ 79,340</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>$ 54,644</td>
</tr>
<tr>
<td>Black</td>
<td>$ 49,629</td>
</tr>
</tbody>
</table>

Source: U.S. Census, March 2014
In 2014, an upper-middle income household with three people earned about $126,000 to $188,000.

Highest-income household earned more than $188,000.

To Which Social Class Would You Say Your Belong?

Your Future
Transit’s “Big Tent” Positioning Will Become Even More Relevant

Demographic
Cultural / Societal
Transport / Mobility
Shift #8
Rising Cost Of Transportation

Transportation Expenses Impacting All Generations
**Long Term Gas Prices**

![Chart showing long term gas prices](chart-long-term-gas-prices.png)


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**Potential Growth In Toll Road Mileage**

![Chart showing potential growth in toll road mileage](chart-toll-road-mileage.png)

Source: EMSmith
The average age of household vehicles is increasing

Average Age of Automobiles and Trucks in Operation in the United States

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Age (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>8.4</td>
</tr>
<tr>
<td>2001</td>
<td>8.4</td>
</tr>
<tr>
<td>2005</td>
<td>9.0</td>
</tr>
<tr>
<td>2009</td>
<td>9.5</td>
</tr>
<tr>
<td>2013</td>
<td>11.4</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Transportation

Your Future
Increasing Cost of Travel Will Drive Greater Use of More Affordable Options
Shift #9

Growth of TNCs

Transportation Network Companies

Millennials Driving The Sharing Economy
30%

Young Americans use ride-sharing services.  
(15% of adults of all ages do).

Source: Pew Research Centre

Your Future

Partnering with TNCs, Not Competing Against Them
Shift #10

Arrival of Autonomous Vehicles
1909 there were 200,000 motorized vehicles in the United States. Just seven years later, in 1916, there were 2.25 million.

“The U.S auto industry will change more in the next 5 years than it has in the past 50.”

Dan Ammann
President, General Motors
5 Predictions Related To Autonomous Vehicles
1. Mainstream By 2030

- **2018** Cabs In Big Cities
- **2020** for fully automated models being purchased by consumers
- **2025** for sufficient numbers (cabs and owned vehicles) to make a difference (including $1,000 retrofitting)
- **2030** - a transformative societal impact

Partially self-driving cars will be a “blip”
2. Very Safe

3. Self-driving cars will change how we think about travel.
4. Self-driving cars will change how we think about where we live.

5. Self-driving cars will change what we pay for transportation
Autonomous cars operating in a rideshare mode will provide the cheapest per mile transportation ever known to man.

Your Future

Partnerships!
All options will be all hyper-connected and seamlessly integrated as everyone’s personal transportation system.
Ideas To Consider

5

Make Sure Your Community Really Understands And Appreciates You Today

1
2.

Identify and Promote Your USP

. . . And Make Sure The Public Appreciates Your Future Plans
A Bus Company

Mobility Partner

From

To

Just Our Services

Integrated With All Market Services

From

To
Your Shared Future

Roads, autonomous vehicles, shared use vehicles and your network of public transit options are all hype-connected and seamlessly integrated as your customers’ personal transportation system.

Your Mission: Closely Collaborate With Transportation Network Car Providers

1. First/last mile service
2. Off peak
3. Paratransit services*

*THE RIDE (MBTA) and MetroAccess (WMATA).
Serves Everyone, Everywhere

From

To

Hyper-Focused On Key Services

Serves Everyone, Everywhere

From

To

Hyper-Focused On Key Needs
3
Continuously Improve You Service

What To Do

First, Know Where To Focus
Identifying Focus Areas Through a Gap Analysis Expectation and Performance

Q25. How important to you is each of the following attributes when you are choosing the way you travel around the Richmond area?

Q26. Based on your personal experience, how would you rate GRTC’s performance on these attributes?

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Importance</th>
<th>Performance</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>86%</td>
<td>73%</td>
<td>-13</td>
</tr>
<tr>
<td>Convenience</td>
<td>85%</td>
<td>77%</td>
<td>-8</td>
</tr>
<tr>
<td>Ease of use and access</td>
<td>85%</td>
<td>79%</td>
<td>-6</td>
</tr>
<tr>
<td>Safety</td>
<td>84%</td>
<td>81%</td>
<td>-3</td>
</tr>
<tr>
<td>On-time arrival at my destination</td>
<td>84%</td>
<td>71%</td>
<td>-13</td>
</tr>
<tr>
<td>Affordability</td>
<td>83%</td>
<td>75%</td>
<td>-8</td>
</tr>
<tr>
<td>Cost of the trip</td>
<td>80%</td>
<td>73%</td>
<td>-7</td>
</tr>
<tr>
<td>Travel comfort</td>
<td>79%</td>
<td>75%</td>
<td>-4</td>
</tr>
<tr>
<td>Good for the environment</td>
<td>76%</td>
<td>74%</td>
<td>-2</td>
</tr>
<tr>
<td>Using time productively during the trip</td>
<td>75%</td>
<td>73%</td>
<td>-2</td>
</tr>
<tr>
<td>Amount of stress I would experience on the trip</td>
<td>70%</td>
<td>69%</td>
<td>-1</td>
</tr>
</tbody>
</table>
What To Do

Build An Internal Customer Service Culture

Route is direct
Driver is courteous
Payment process is easy
Bus is clean
Bus stop is clean
Wait time is short
Bus is comfortable
Bus is reliable
Bus runs on time
Enough seating
Bus is handicap accessible
Bus is safe
Bus stop is safe
Bus is well-lit
Bus stop is well-lit

Driving Satisfaction with ART
Driving Satisfaction with ART

Driver is courteous

- Bus is clean: 0.257
- Wait time is short: 0.112
- Bus runs on time: 0.181
- Bus is handicap accessible: 0.115

Satisfaction with ART

Coefficient

Driving Satisfaction with ART

Driving Satisfaction with ART

- Driver courtesy and short wait time have particularly strong impacts on satisfaction with ART.

What To Do

Put Everyone in The Customer Service Business
What To Do

-----------------------------------
Make your service easy and hassle free!

What To Do

-----------------------------------
Make your service sexy!
What To Do

Make your service rewarding!

Build A Broad Based Coalition
Transit Is Not THE Top Community Need

| Enhanced economic development | 89% |
| Improved quality of K–12 education | 89% |
| Reduction in poverty | 82% |
| Expanded access to quality children’s healthcare | 81% |
| More comprehensive pre-K education | 79% |
| Expanded access to quality adult healthcare | 77% |
| More effective workforce training | 75% |
| More affordable housing options | 73% |
| Expanded transit service across the region | 73% |

Please note: Percentages represent top two box ratings of “4” and “5” from Q4. Q4: How important are each of these community needs today?

Include The Business Community

How would you distribute $100 among these transportation services and needs?
Public Transit Service Would Receive the Most Funding

<table>
<thead>
<tr>
<th>Service</th>
<th>Total</th>
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<tr>
<td>Public transit service</td>
<td>$31</td>
</tr>
<tr>
<td>Passenger train service</td>
<td>$17</td>
</tr>
<tr>
<td>Sidewalks and bicycle paths</td>
<td>$15</td>
</tr>
<tr>
<td>Local secondary roads such as Broad Street and Hull Street</td>
<td>$12</td>
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<tr>
<td>Intercity highways such as I-95 and I-64</td>
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<tr>
<td>Airport facility</td>
<td>$7</td>
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<tr>
<td>TOTAL:</td>
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Q13. How would you distribute the $100 among these services and needs?

Business Support for Public Transit Service

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<th>2005</th>
<th>2009</th>
<th>2015</th>
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Become Part of Your Community’s Econ. Dev. Efforts