DVRPC

By the Numbers:
2 States
9 Counties
351 municipalities
5.7 million people (2015)
6.4 million people (2045)
3.0 million jobs
108 million daily vehicle miles traveled
1 million transit trips / day
DVRPC Long-Range Planning

#MakingConnections | @dvrpc
Previous Scenario Planning Efforts
Previous Scenario Planning Efforts

www.dvrpc.org/choicesandvoices
Future Forces

Futures Group Tasks

1. Brainstorm Future Forces of change

2. Vote on their impact and likelihood

3. Use Forces to create 4-5 highly differentiated What-If Scenarios
   a. Create robust visions of the future
   b. Analyze probable implications

4. Identify universal actions and contingent actions

5. Determine leading indicators for each Force

6. Create a short, graphic publication, and incorporate into Choices & Voices
Greater Philadelphia’s Futures Group
Impact-Likelihood Voting Results

- Transportation Demand
- Enduring Urbanism
- Severe Climate
- Partisan Paralysis
- The U.S. Energy Boom
- The Free Agent Economy
- Megaregional Mobility
- Keeping up with the Joneses
- Confronting Climate Change
- Automation Nation
- Putting the Ship Back in Shipping
- Netvolution
- New Cures for All That Ails
- Intelligent Infrastructure
- Robocars
- Sabergovernmetrics
- Variations on a Theme
- Sharing a Lyft
- Wildcards
Forces the Futures Group Identified

- **Enduring Urbanism**: People and jobs moving to walkable communities is the start of a long-term trend.

- **The Free Agent Economy**: Increased outsourcing and automation means individuals must create their own economic opportunities.

- **Severe Climate**: Continued rise in atmospheric carbon levels lead to significant disruptions from climate change.

- **Transportation on Demand**: Smartphones, apps, and real-time info help people get around using new and existing transportation modes.

- **The U.S. Energy Boom**: An abundance of domestically produced oil and natural gas keeps the cost of energy low.
Background Forces

Partisan Paralysis
Intelligent Infrastructure (Internet of Things)
Connected Vehicles
Technology Enhanced Health / Chronic Health Conditions
Aging Population
Sharing Economy
Panama Canal Widening
Demand for Same-Day Delivery
Improving Freight Logistics
School Quality Driving Family Location
More Immigration
Declining Water Quality (Suburban)
Some Degree of Climate Change
Flat/Declining Transportation Funding
Worsening Infrastructure Conditions
“The only relevant discussions about the future are those where we succeed in shifting the question from whether something will happen to what would we do if it happened.”

Arie de Geus
Shell International Petroleum Company
What-if Scenarios

- How will CLIMATE CHANGE impact our region?
- How will I GET AROUND in 2045?
- How much will ENERGY cost in the future?
- Will our CITIES AND TOWNS thrive?
- What will my JOB look like in 25 years?
Models

Experts/Stakeholders

Futures Group

Strategic Analysis Tools

NCHRP PROJECT 20-83

IMPACTS 2050: Dynamic Analysis of Socio-Demographic & Travel Scenarios

TravelWorks

RapidPolicy

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What-If Scenario

Walkable Centers
What-If Scenario

Blurring of City and Suburb
Contingent Actions

- (Re)Develop without displacement
- Living streets / protected bike lanes / pedestrian plazas
- Increase transit service
- Redevelop suburban office parks as mixed-use centers
- Protect industrial zones
Percentage of Residential Building Permits in Core Cities and Developed Communities

<table>
<thead>
<tr>
<th>Year</th>
<th>DVRPC Region</th>
<th>Core Cities / Developed Communities</th>
<th>Percent Core Cities / Developed Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2004</td>
<td>35,318</td>
<td>100,000</td>
<td>40%</td>
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<tr>
<td>2005-2009</td>
<td>62,283</td>
<td></td>
<td>51%</td>
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<tr>
<td>2010-2014</td>
<td>43,438</td>
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<td>61%</td>
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</tbody>
</table>


Annual Vehicle Miles Traveled and Transit Trips Per Capita

Leading Indicators
Universities are Economic Growth Engines
What-If Scenario

Significant Disruptions
What-If Scenario

Less Car Ownership, More Mobility
Regional Growth Around Energy Hub
Universal Actions

Build lifelong communities
Data-driven governance
Develop the impact economy
Enhance freight and goods movement
Expand broadband infrastructure
Green infrastructure and stream buffer ordinances
Increase regional transportation funding
Infrastructure resiliency
Immigrant-friendly policies
Megaregional collaboration and cooperation
Mixed-use infill development
Modern, multimodal transportation system
Universal pre-kindergarten and other k-12 programs
Vision Zero
Future Forces vs. Vision

The Region Today

Vision

Future Forces

CONNECTIONS 2045
The Region in 2045
More Understanding Needed

1. Full impacts of the “Digital Revolution”
2. On-Demand Outsourcing vs. Automation
3. Abundant, Low-Cost Energy Future
4. Reconstruct, Modernize, and Make Infrastructure More Resilient Within Current Funding Constraint
5. Interplay Between the Forces
6. Recent Past no Longer a Useful Guide for the Future