

The Small-Minded Anti-Streetcar Conspiracy

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The libertarians' anti-transit study mill continues to grind out new products, which regrettably contain more chaff than grain. We say "new" *cum grano salis*, because they offer the same arguments over and over. To ideologues, facts don't count. The first thing written is the conclusion.

A recent example of the genre is *The Great Streetcar Conspiracy* by Randal O'Toole, published June 14, 2012 by the Cato Institute, a libertarian think-tank. As usual, it is a child's garden of errors, false "facts," distortions and unwarranted conclusions. This study may set a record, even for the anti-transit troubadours: in a mere 16 pages it manages to make at least 52 false or misleading statements. We don't know how they will top that, perhaps by claiming in their next study that streetcars are bad because of all those moving cables that run beneath the streets.

Fifty-two is a lot of errors to correct; let's get started.

The Executive Summary:

1. *Page 1, paragraph 1: ". . . the administration wants to eliminate cost effectiveness requirements for federal transportation grants. . ."*

The statement is false. Federal law requires the Federal Transit Administration (FTA) to use cost effectiveness as a criterion in evaluating capital projects. FTA has never proposed to eliminate cost effectiveness. FTA has proposed in its rules for 2012 that the measure of cost effectiveness be changed from one based on travel time savings to one based upon cost per trip. O'Toole has yet to discuss cost per trip because it is favorable to streetcars.\

2. *Page 1, paragraph 3: "Almost no new development took place (in Portland) on portions of the streetcar route where developers received no additional subsidies."*

Attached is Figure 1 which is a map of development along the Portland Streetcar line, dated April 2008. Each yellow dot on the map represents a new development that occurred between 1997 and 2008. The developments are spread throughout the line with the exception of NW Portland that was already developed fully. O'Toole is trying to contend that development would not occur without subsidies. O'Toole compares the Pearl (north section inside I-405) to the Northwest District (northern-most streetcar west of I-405). The Northwest District is the most-dense neighborhood outside of downtown. Comparing the rest of the area the streetcar serves to the Northwest District is unfair as the neighborhood is already substantially developed – with the exception of one large former trucking

operation (Con-way) at the northern edge of the district which is now moving toward mixed use redevelopment predicated on further streetcar extension. Looking at the development map of Figure 1, one can easily see that development occurred along the entire line, not just in the Pearl.

3. Page 1, paragraph 5: *“Streetcars cost roughly twice as much to operate, per vehicle mile, as buses.”*

O’Toole steadfastly insists on comparing cost per vehicle mile for streetcars. The reason: cost per vehicle mile is the most biased against streetcars. The most recent proposal from FTA is to use cost per ride as a measure for cost effectiveness. O’Toole not surprisingly refuses to use cost per ride in his articles. The Portland Streetcar carries 4 million riders per year and the annual operating budget (FY 11-12) for the streetcar was \$5.7 million which equals \$1.43 per ride cost. The TriMet bus average cost per ride is \$2.82. Figure 2 is the Oregonian Politifact article of February 12, 2012 that documents these facts. Charlie Hales, as candidate for Mayor of Portland, contended streetcars cost less to operate than buses and his statement was judged by the Portland Oregonian as TRUE!

4. Page 1, paragraph 6: *“Instead of subsidizing streetcars, cities should concentrate on basic –and modern – services such as fixing streets, coordinating traffic signals, and improving roadway safety”*

This last sentence in the Executive Summary gives the libertarians’ real game away. In other words, to heck with transit, let’s make sure everyone remains completely dependent on roads and cars. Just how is sustaining this publicly supported monopoly consistent with libertarians’ supposed belief in competition?

5. Page 2, Introduction, paragraph 1: *“In 1974 a Senate staffer named Bradford Snell invented the myth of the ‘Great General Motors Streetcar Conspiracy.’ According to Snell, GM, Firestone Tire, Phillips Petroleum, and Standard Oil of California conspired to “destroy public transit . . . by eliminating streetcars.”*

While O’Toole maintains that Bradford Snell’s claims of General Motors’ campaign to eliminate streetcars have been repeatedly “debunked,” Mr. Snell continues to be widely recognized as the most knowledgeable historian of General Motors’ decades-long anti-streetcar drive. Snell’s view is supported by Edwin Black’s comprehensive book, ***Internal Combustion***. Chapter 10, *The GM Conspiracy*, offers another well-documented description of the coercive drive led by General Motors to render transit in this country ineffective. Central to GM’s strategy was eliminating the streetcar. Obviously, there were other factors that magnified the success of the GM-led effort. These included the Public Utility Holding Company Act of 1935, the Depression, short-sighted local policies that starved transit companies of the capital they needed to compete, massive public expenditures on roads, and predatory state highway departments (not necessarily in that

order). All combined to devastate transit, particularly rail transit.

6. Page 2, paragraph 2: *“Even James Graebner, who chairs the American Public Transit Association’s streetcar committee, calls the General Motors conspiracy “a rather satisfying urban legend,” but notes that, “in fact, when presented with the choice of either maintaining the street railway infrastructure . . . or operating buses on publicly funded roads,” replacing streetcars with buses “was an easy choice for the private sector.”*

Jim Graebner’s statement is correct, but its use here is misleading. The key is the phrase, “publicly funded roads.” In other words, the roads were subsidized while the street railway companies’ tracks were not. Don’t libertarians believe that such subsidies distort market outcomes? If so, be consistent. Apparently Mr. O’Toole finds such distortions fine and dandy when they benefit highways and hurt rail transit – as highway subsidies did, massively, in the destruction of America’s once-excellent network of electric railways.

7. Page 2, paragraph 3: *“. . .nor did they [General Motors et al.] try to destroy streetcar lines, but merely recognized that the transit industry was rapidly replacing streetcars with buses and tried to take advantage of that trend.”*

National City Lines did indeed “try to take advantage of that trend;” they helped create “that trend” by ripping out streetcar lines and replacing them with buses, GM buses. Without reiterating the story of how GM funded National City Lines and other holding companies to acquire and convert streetcar properties (see Snell, and Black, ***Internal Combustion***, above), suffice it to say that while conspiracy may be too strong a word, willful damage is an accurate description.

8. Page 2, paragraph 4: *“During the years GM and the other companies had an interest in National City, more than 300 streetcar systems converted to buses, but fewer than 30 of those systems were owned by National City.”*

The real number is around 100, and involved not only transit companies purchased by GM holding companies (United Cities Motor Transit, National City Lines, American City Lines, Pacific City Lines, etc.) but also direct efforts by GM operatives to hasten the discontinuance of streetcars. (Tampa, Detroit and Cleveland are the most egregious examples)

9. Page 2, paragraph 5: *“In 1947 a New York City transit expert named John Bauer testified before the Portland, Oregon, city council that he was ‘absolutely opposed’ to cities maintaining their streetcar lines. Streetcars, he told the council, are slow, noisy, and tie up traffic.” . . . ‘Streetcars maintain an average speed of only eight miles per hour,’ he testified, “whereas . . . buses average 12 miles per hour”* .”

During a visit by one of the authors of this paper to the Toronto Transit Commission (TTC), TTC officials stated that they found streetcars were a third faster than buses. Because electric motors have uniform torque, streetcars accelerate faster than buses, which is a major factor in route speed in stop-and-go traffic (A PCC streetcar designed in the 1930s and still in service in a number of American cities can take any hotrod at a stoplight). Streetcars also usually have less dwell time at stops because most streetcars designs permit level boarding at more than one door, not just at the front. Dwell time is also a major factor in route speed. Toronto’s current mayor advocated destroying the city’s iconic streetcar system until he was informed that doing so would require 550 buses to replace 300 streetcars.

Mr. O’Toole’s average speed figures reflect the fact that when streetcars were dominant, buses were usually employed on less dense routes in outlying locations where traffic was much lighter. Thus they could make better time but carried considerably smaller passenger loads at more cost per passenger.

10. Page 2, paragraph 6, *“Replacing streetcars with buses was a rational decision then for all the same reasons that building streetcar lines is irrational today.”*

Replacing streetcars with buses was “rational” only because the roads that buses ran on were subsidized. Looked at more broadly, it was an irrational decision, because it contributed greatly to the decay of urban downtowns all over America. Because most people find riding a streetcar preferable to riding a bus, when cities lost their streetcars they became clogged with automobiles as former streetcar riders switched to the car. Any urbanist can give you a long talk on how too many cars ruin cities. Streetcars, in contrast, are pedestrian facilitators, and pedestrians are the lifeblood of cities and urban neighborhoods. That is why cities now seeking to revitalize their downtowns are bringing back the streetcars.

11. Page 2, paragraph 7, *“That [today’s] conspiracy aims to deceive taxpayers and appropriators into believing that, all by themselves, streetcars can magically revitalize blighted neighborhoods, produce jobs, and generate billions of dollars of economic development.”*

In this paragraph, Mr. O’Toole introduces a straw man he will punch relentlessly in the remainder of his paper. No one argues that streetcars “all by themselves” can revitalize blighted areas. Running a streetcar line through a high-crime area, as Washington, DC is

now doing with its Anacostia streetcar, is not likely to bring revitalization on its own. Order and personal safety are the first requirement of any urban renewal effort. Rather, experience has shown that streetcars are effective components of plans for urban revitalization, as they are effective components of large transit systems, serving the necessary collection and distribution functions. By talking about streetcars alone, Mr. O'Toole sets up an argument only with himself. No transit or urbanist professional believes in magic.

12. *Page 2, last sentence and, page 3: "Spurred by the promise of federal funding, more than 45 American cities are expanding, building, planning, or considering streetcar lines."*

Not all new or projected streetcar projects are using federal funding (Washington, DC, Los Angeles, El Paso and San Antonio, TX, Kansas City, MO, Oklahoma City, OK, and Seattle, WA are seven advancing projects not using federal funds). All new streetcar lines require a local cost share for construction and full local responsibility for operating funds (there are no federal dollars for transit operations for large metropolitan areas except in a few limited situations). If all those cities – the number now exceeds 80 – did not think they would benefit from bringing back the streetcar, why would they be willing to put up their own money in order to do so?

13. *Page 2, paragraph 7 and Page 3, paragraph 3: "If there ever was a streetcar conspiracy, it is today's conspiracy of politicians, engineering firms, contractors, railcar manufacturers and transit agencies trying to persuade city governments and taxpayers to spend hundreds of millions of dollars on frivolous and obsolete transportation systems such as the so-called modern streetcar. . . . No wonder: they stand to make millions in profits designing and building streetcar lines."*

Mr. O'Toole's condemnation of engineering firms and rail contractors has merit in some cases. Too many streetcar (and light rail) lines are being built at unjustifiable prices. The system seems to lack incentives critical to keeping costs down. Conservatives should take the lead in demanding cost reduction, not continual cost increases, in rail transit construction. There needs to be greater scrutiny of specifications to insure that systems are not overbuilt (higher speed overhead catenary on city streets or in storage yards, for example, when simple span overhead would suffice). Too many engineering firms take work done for previous projects and apply it to the next, whether justified or not, because it's cheaper for them, but not for the project. This is not a condemnation of the streetcar, but a plea to the consultants preparing the engineering and design specifications of streetcar (and light rail) systems to work harder to produce cost effective products.

14. *Page 3, paragraph 8: “The Obama Administration is currently rewriting the rules for Small Starts, and the draft rules, issued January 25, 2012, effectively eliminate the cost-effectiveness requirement.”*

As noted earlier, the statement is false. The Obama Administration cannot eliminate cost effectiveness as it is a statutory requirement enacted by Congress. FTA is proposing to define cost effectiveness on the basis of cost per ride rather than travel time savings. Rail transit modes that travel long distances do create travel time savings. The streetcar that serves the shorter trip does not provide significant travel time savings but serves other necessary functions including collection and distribution of people riding transit from distant suburbs. Shorter trips also occur when residents live closer to where they work and shop, avoiding the need for long, expensive and energy-consuming commutes. The evidence to FTA that short trips and the “trip not taken” are valuable for our urban future has convinced FTA to revise the cost effectiveness measurement.

Portland trip statistics show that a family living in a good transit environment will travel an average of 9 miles per day. That same family in a poor transit, auto-dependent suburban environment will travel 22 miles per day. Portland is one of the few cities in the US where vehicle miles traveled per capita has been declining and this has been true since 1995.

15. *Page 4, paragraph 2, “As World Bank economist Wenling Chen points out, the existence of capital grant programs such as New Starts and Small Starts gives cities incentives to favor projects with the highest capital costs, partly in an effort to gain the largest share of federal funding.”*

Mr. O’Toole has a point here, namely that many projects cost more than they need to. However, we doubt that cities, cash-strapped as they are, would pursue transit projects with the highest capital costs for their own sake. They still have to come up with the local share, which today is at least 50% of project costs, if the federal government participates. Still, the process needs to add incentives to keep capital costs down. One way we favor is for FTA to establish “should cost” figures for streetcar and light rail construction. Any project that exceeded the “should cost” figures would need extensive documentation as to why and would be less likely to get approval. If FTA were also to adopt a policy of only providing its share of funding based on the “should cost” level (thus requiring the locality to come up with the extra bucks), the incentive for economizing would be even stronger.

16. *Page 4, paragraph 5, “Rail transit systems—including rails, railcars, stations, and electrical systems—must be replaced or rebuilt at least every 30 years.”*

Rail vehicles on average last between 25 – 30 years, while buses are usually retired after twelve years. Highways require constant expensive maintenance and periodic major rebuilding, all at public expense.

17. Page 4, paragraphs 5: *Mr. O'Toole listed Cleveland as one of the 6 remaining cities operating streetcars in 1964.*

Cleveland abandoned its last streetcar line in 1954. The two Shaker Heights Rapid light rail lines continued to operate, connecting downtown Cleveland with the southeastern part of the Cleveland metropolitan area. The Shaker Rapid was modernized with new equipment and rebuilt rights of way in 1980. Cleveland also has one high platform rapid transit rail line, opened in 1955.

18. Page 4-5, "*Portland's Failed Light Rail.*"

Portland's initial Banfield light rail line opened in September, 1986 and has been deemed a great success, using generally accepted measures (ridership, total mobility, increased choice, corridor capacity improvements, focused development, etc.). The study cited by Mr. O'Toole in proclaiming the line a failure was published in 1990 (prepared in 1989) using data projections made in 1978 that assumed that the light rail line would have been placed into service in 1983. The 1978 projections were updated with more current economic, demographic and land use data before the line opened. Using the updated projections, ridership was shown to be well on track just three years after opening. Today, some twenty-seven years later, the Banfield (now Blue) line is carrying on average over 60,000 weekday riders. This compares favorably with ridership on other light rail systems across the country.

Mr. O'Toole's assertion that "cost overruns" on Portland's first light rail line forced TriMet to cut bus service also is not true. According to Tri-Met figures, the Banfield project was completed on time and within budget. Bus service was restructured to feed into the new light rail line, capturing efficiencies and leading to the reduction of parallel bus service. Citing figures from 1980 to 1990 is a red herring since Portland's first light rail line did not open until September 1986. Mr. O'Toole does not document the source of his numbers for that decade. A more relevant picture is captured from the decade 1990-1999 when overall TriMet ridership increased by 51%, spurred by the opening of two additional light rail lines. When Portland's second line opened in September 1998, the impact on congestion in the Westside corridor was measurable. Data captured in May 1999 (just nine months after the second light rail line opened) revealed that transit's share of westbound trips increased by 5% while the share of drive alone auto trips declined 3%. Finally, transit ridership from 1983 to 2000 grew by 72% from 154,200 average daily boardings before light rail opened to 265,300 at the end of 2000. That number has climbed to 321,200 as of the end of May, 2013, a 21% increase over the 2000 ridership level (and a 108% increase over 1983).

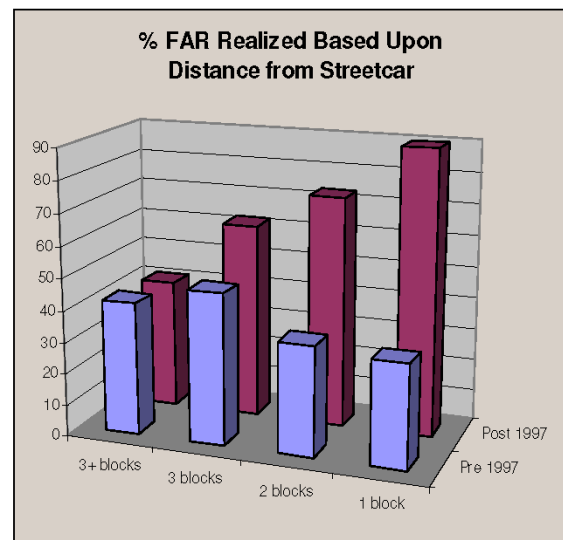
19. Page 5: *“The Economic Development Hoax.”* O’Toole contends that the only reason development occurred in Portland was large subsidies and that the streetcar did not cause the development.

O’Toole contends that the only reason development occurred were the large subsidies created by urban renewal districts in Portland. Portland did experience an urban renaissance in the Pearl District through a comprehensive strategy to support redevelopment. The streetcar was central to that strategy. The urban renewal program is a comprehensive redevelopment program. Public funds were used for infrastructure, environmental cleanup of brownfield sites, and assuring affordability. Along with quality transit access provided by the streetcar, these other elements are essential to an effectively planned mixed-use development. Together they generated redevelopment and new development that extended along most of the line where this was possible.

Rates of new development were appreciably greater for properties in closest proximity to streetcar service. Properties located within one block of the streetcar alignment went from capture of less than one-fifth (19%) of downtown development before streetcar investment to the majority (55%) share of all downtown area development post-streetcar. Overall, properties within three blocks of the streetcar alignment went from 47% of the pre-streetcar inventory of downtown building space to 75% of new development post-streetcar.

Streetcars alone did not cause these changes. Master-planned development agreements and other supportive public infrastructure played a role. But to suggest that streetcars made no difference is to ignore actual experience.

An even more significant result was the change in the density of new development. The graph shows the percentage of the floor area ratio developed for new projects built after 1997 as compared to projects built before 1997. The data is organized by distance from the streetcar line and collected for the entire Central City. The graph shows that projects built after 1997 averaged 92% of the allowed density when located within 1 block (250 feet) from the streetcar line. This average is compared to the 42% of allowed density for the rest of the Central City more than 3 blocks from the streetcar.



The Portland experience is being replicated elsewhere, with each city taking advantage of distinctive opportunities for development oriented transit. A 2009 study by The Brookings Institution provides in-depth case study research for three American cities with recent streetcar and related development experience – Portland, Seattle and Tampa. Of the three, Portland experienced the greatest increase in raw land valuation, due largely to substantial underdeveloped property in proximity to the streetcar alignment. In Seattle, the streetcar proved to be a particularly important catalyst for bioscience and office-related development near Lake Union, as well as for residential and mixed use activity. Tampa’s streetcar investment was intended to serve as a catalyst for increased tourism but led to unanticipated benefits for other commercial and mixed use investment as well.

The Brookings study observes that a major benefit of these three streetcar projects has been the “ability to connect places that were never connected before.” In effect, “the streetcar became the connective tissue and organizing principle for growth” in each of these communities. The streetcar was not the only reason for development. Key private players were in place to assure that the streetcar’s return on investment kicked in early-on. This early success served to draw new and often unanticipated business and investment interests toward transit supportive developments as well.

20. *Page 5, paragraph 6: “TIF [Tax Increment Financing] essentially allows cities to use the taxes paid on new developments . . . to subsidize those developments.”*

Here Mr. O’Toole contradicts what libertarians are supposed to stand for. What’s wrong? Almost everything. First, Mr. O’Toole writes this in his section entitled “The Economic Development Hoax.” But if the development is a hoax, then there is nothing for TIF to tax! The fact that Portland raised \$435 million in TIF funds means there was new development, lots of it. So the “hoax” claim is bogus. More, with many other libertarians, Mr. O’Toole flings around the word “subsidies” like an epithet. Plowing money earned from development back into more development is called investment, not subsidy. Development, not other taxpayers, pays for development.. This is exactly what markets are supposed to do, those markets that libertarians hold sacred. When doesn’t Mr. O’Toole talk about subsidies? When they benefit highways.

21. *Page 6, paragraph 8: “The streetcar report itself never actually claims that any of this development took place because of the streetcar. While city officials never hesitated to make that claim when giving officials from other cities tours of their “streetcar miracle”, they also never mentioned the hundreds of millions of dollars in TIF subsidies, tax abatements, and other subsidies to developers along the streetcar line.”*

The first sentence is true. Portland Streetcar has never claimed a causal relationship between the streetcar alone and development along the line. The streetcar was a key, critical component in Portland’s development strategy, as described in the above

answer, but not the only one. The second sentence shows O'Toole's desperation to invent arguments. Portland gives 40-50 tours a year of the "streetcar miracle" to other cities. That is quite a number of tours for O'Toole to claim to know what is being presented on each.

22. *Page 6, paragraph 9: "Downtown Portland's revitalization owes more to the microbrewery revolution, which started in Portland in 1980, than to mass transit."*

The notion that Portland's downtown revitalization is largely a product of the growing number of brewpubs gives beer more power than even Bud ads claim. Mr. O'Toole here renders himself simply not serious. And would Mr. O'Toole prefer this supposed herd of beer drinkers drive home from their night of imbibing at those myriad brewpubs dotting the downtown landscape? Vienna, Austria has a streetcar line that brings the tipsy crowd home from the district where one goes to drink the year's new wine (*heurigen*). Perhaps Mr. O'Toole would support expanding Portland's streetcar network to provide a similar service.

23. *Page 7, paragraph 2, "The lack of new suburban homes led many young people to buy or rent homes in the Portland inner city, including Northwest Portland, just north of downtown, and the central eastside, just east of downtown. These neighborhoods provided the easiest 'reverse commutes' from Portland to Washington County."*

Many cities, not just Portland, are seeing growing numbers of young people forgo the suburbs for life in the urban core. Other than Portland, none of those cities has an urban growth boundary. Many, such as Cleveland, have ample, available, inexpensive suburban housing stock. Young people are choosing to live downtown because of the many opportunities and services cities offer that suburbs do not, including, in a growing number, high quality transit such as streetcars. If it's happening in places from Cleveland to Oklahoma City, there must be something more going on than urban growth controls. It's about a clear and increasingly well documented lifestyle preference for urban living.

24. *Page 7, paragraph 5: "At best, the streetcar gave the Pearl District a Disney-like ambiance that made it a little more exciting. But cities cannot expect that a streetcar alone will stimulate development unless it is accompanied by hundreds of millions of dollars in supporting subsidies and those subsidies are offered in a neighborhood that is in or adjacent to an area that is already rapidly growing."*

If "Disneyland-like ambiance" is the same as walkable urban environment, the statement is true. The development of walkable urban environments is desired by most cities in the country for good reasons. O'Toole is correct that it takes more than the streetcar. It takes a comprehensive and intentional approach to assuring walkability, quality transit access, good planning and design, parks and open space,

and most important a commitment to affordability. This comprehensive, intentional approach has proven to be successful as more and more cities are committed to creating walkable urban environments. The largest public sector investment in Portland was in affordability. In the Pearl District, 22% of all the residential units are affordable. Cities can experience a high level of privately-led development without a major public investment but are likely to miss out on assuring affordability. Seattle has experienced \$3.2 billion of investment along the South Lake Union Streetcar after only 4 years. Tampa and Little Rock both have documented significant development along their streetcar lines.

25. *Page 7, last paragraph: “Nor has the streetcar contributed to commuting . . .”*

Of course the streetcar has not contributed to commuting; this is the role of TriMet’s light rail and bus network. Portland’s light rail system carries 26% of Portland area commuters headed downtown via the area’s two main corridors (Sunset Highway and Banfield Freeway). Portland residents rely on the streetcar to reach a myriad of non-work destinations, including shopping, restaurants, educational opportunities, medical facilities, libraries, recreation, etc. While some Portlanders indeed use the streetcar to reach their jobs, that is not its main purpose, and certainly not the reason the streetcar was built.

26. *Page 8, paragraph 2: “One reason the streetcar attracts any riders at all is that most of the route (including the Pearl District but not the South Waterfront District) is in TriMet’s downtown free-fare zone.”*

The free-fare zone in downtown Portland was abolished on September 1, 2012. A free ride will always attract a certain level of ridership. In fact, a number of cities across the globe (twelve in France alone) have already abolished fares altogether, making transit free. The first major city to make this move, Tallinn, Estonia, abolished fares in early 2013. However, with the discontinuance of Portland’s free fare zone, the impact on streetcar ridership has been less than feared. Ridership on the North/South line has stabilized at around 9,300 per average weekday. The (incomplete) East Portland loop (now Central Loop) carried 3,400. As of May, 2013, total ridership on the Portland Streetcar was 12,700. When the Central Loop is completely operational (over the new bridge that will carry both streetcars and Portland’s light rail line to Clackamas County) in September 2015, ridership is expected to rise dramatically on this segment.

27. *Page 8, paragraph 7: “To provide federal funding for streetcar expansions, in 2003 Portland’s representative in Congress, Earl Blumenauer, authored the bill creating the Small Starts program. Blumenauer’s intentions were foiled when the FTA under the Bush administration wrote rules requiring that streetcars be cost-effective relative to buses. Pressure from Earl Blumenauer and Oregon representative Peter DeFazio (who at the time chaired the Transit Subcommittee of the House Transportation Committee)*

led the Obama administration to ignore this rule in 2009 when it gave Portland \$75 million in Small Starts funding for the streetcar extension that is now under construction.”

O’Toole is once again inaccurate. Congressman Blumenauer introduced the Streetcar Community Development Act. The Republican led House in 2005 passed SAFETEA-LU reauthorization that included the Small Starts provision. Portland applied for \$75 million for a Small Starts capital grant and was approved for Project Development under the Bush Administration. SAFETEA-LU required equal treatment of three criteria for judging projects: economic development, land use, and cost effectiveness. Under the Bush administration, the FTA rated Portland’s streetcar expansion “Medium” overall for all three of the criteria, which made the project eligible for capital grants. The Bush administration included funding for the Portland Streetcar Loop in its 2008 budget recommendation to Congress. On October 29, 2009, the Project Construction Grant Agreement with FTA was approved.

What O’Toole misses is that streetcars are recognized by both political parties as having a value for the future of our cities. This value is being recognized around the country in conservative as well as liberal communities, including Salt Lake City, Dallas, Phoenix and Oklahoma City, because the streetcar provides quality transportation for the shorter trip and supports walkable urban environments. This value extends beyond quality of life impacts to encompass regional economic competitiveness. As has been noted by the Urban Land Institute

(ULI, a pre-eminent national organization of development professionals), the economic winners post-recession are “global pathway” metro areas. These are “24/7” places offering vibrant urban cores, connectivity and cultural diversity. The enhanced competitiveness of urban places also explains why urban cores held their real estate values and maintained stronger occupancies than the suburban alternatives through the recession and into the current economic recovery.

28. Page 8, paragraph 8: *“While streetcars are expected to last longer than buses, they don’t last six times as long, so the streetcar cost per seat mile is much higher.”*

There are numerous examples of streetcars serving for long periods of time, in some cases exceeding the six times as long disparaged by Mr. O’Toole. Rebuilt or extensively rehabilitated PCC streetcars originally delivered over sixty years ago remain in service in San Francisco, San Diego, Philadelphia, Boston and Kenosha, WI. New Orleans continues to operate streetcars (St. Charles Avenue line) that were originally built in 1923-1924. Most rail passenger vehicles with proper maintenance (including mid-life rebuilds) can give more than 30 years of efficient, effective service. FTA allows transit agencies to retire and replace FTA-funded standard buses after 12 years. Streetcars cost more than buses but are capitalized over a much longer period

and also involve much lower on-going operating costs. The last clause in Mr. O'Toole's quote cited above is a classic *non sequitur*. There is absolutely no connection between operating cost per seat mile and vehicle capital costs.

29. Page 9, paragraph 2: *“Doing business as United Streetcar, Oregon Iron Works purchased plans from the Czech manufacturer. The resulting car, however, proved unsatisfactory, and another \$3 million (\$2.4 million from the federal government) was needed to put the car into operation. This eventually produced a \$1.9 million car that cost \$7 million.”*

The final sentence is classic libertarian sloppiness with use of numbers to create misleading statements. In 1998, Portland signed a contract with Inekon-Skoda of the Czech Republic for 5 vehicles costing \$1.9 million per car. In 2006, Portland ordered three more cars from Inekon at a cost of \$2.6 million per car. That second purchase at \$2.6 million was actually fewer Czech crowns than the \$1.9 million purchase due to US dollar devaluation. Inekon, the Czech supplier, is currently offering vehicles for the US with a price of \$3.8-4.0 million per vehicle.

TriMet in Portland received a federal commitment to “produce a domestically manufactured streetcar”. Two bids were received and Oregon Iron Works (OIW) was selected. The contract paid OIW \$3.2 million for this prototype streetcar. United Streetcar, an OIW subsidiary, completed the vehicle in 2009 and the car was inaugurated into service by Secretary LaHood in July, 2009.

United Streetcar had initially agreed with Skoda of the Czech Republic to install their propulsion system in the prototype vehicle. After they completed the prototype in 2009, United Streetcar approached Rockwell Automation in Milwaukee, Wisconsin about developing a US-based propulsion system. Portland and TriMet proposed to FTA that Rockwell be engaged in developing a US manufactured propulsion system. FTA agreed and granted \$2.4 million to TriMet for this purpose. Of this \$2.4 million amount, \$600,000 in local match was required and United Streetcar agreed to assure the local match with private funds. Funds for this grant also included a comprehensive study of streetcars that could operate without the use of overhead wires (\$400,000). The contract with United Streetcar was amended to allow the prototype to be used for demonstrating the Rockwell propulsion system for streetcars. The total cost for the streetcar with the new domestic propulsion system was \$4.8 million, not \$7 million. This is a reasonable amount considering they were building the first American made streetcar in almost 60 years. Currently, United Streetcar has redesigned the car and owns all rights and is no longer in partnership with Skoda. As conservatives, we like building things in America.

30. Page 9, paragraph 4: *“Oregon Iron Works is using Buy-America requirements to convince other cities to buy its streetcars. Tucson, for example, is paying \$28 million for seven cars, or \$4 million per car. The company's factory has become a regular tour*

stop for Obama administration officials - - including Transportation Secretary Ray LaHood on July 1, 2009, and Treasury Secretary Timothy Geithner on April 24, 2012 - - who tout the company's 'economic success.' In fact, it is a political success, not an economic success, because without political pressure American cities would not be buying streetcars and, even if they did, without Buy America requirements they would buy lower cost streetcars made in Europe."

Is Randal O'Toole recommending that the federal law for Buy America be repealed? MAP-21 strengthens the Buy America requirements. United Streetcar is committed to meeting the Buy America requirements. The federal government has mandated these requirements for all projects using federal funds.

The streetcars made in Europe are not cheaper. In Tucson, United Streetcar was the lowest bidder. Siemens (which builds their cars in Sacramento) and CAF (a Spanish manufacturer) also bid. In Seattle, Inekon won the bid with a \$28 million contract for 7 vehicles. They will assemble the cars in Seattle at Pacifica Engineering but are not required to meet Buy America as no federal funds are being used. In Cincinnati, CAF won the bid competing with United Streetcar and Brookville from Pennsylvania. Dallas recently selected Brookville to build its first order of streetcars. In Washington DC, United Streetcar was selected over Inekon in a competitive bid for production of two streetcars because United Streetcar had the best price.

In short, the competition is growing to supply vehicles. That's good news. An expanded base of suppliers is yielding a winning combination of price savings for streetcar customers coupled with renewed domestic manufacturing capacity and jobs.

The Buy America provision assures US jobs and US content. This is a requirement of the federal government that represents a commitment to restoring manufacturing in the US. The US was the top manufacturer of streetcars in the world in the early part of the 20th century. We would like to see it become that again.

United Streetcar is an economic success because it is employing 120 people building streetcars. This figure does not include the many new suppliers – hundreds of companies across the US, mostly small businesses, that are now supplying streetcar parts. United Streetcar has also invested millions of its own money in innovations, including building the first streetcar test track in the United States.

American cities are not being pressured into buying streetcars. Over 80 cities are currently engaged in streetcar feasibility studies. This includes many cities that will likely not be using federal funds. Buy America does not apply. This interest is not due to political pressure but rather to sound economic policy for revitalizing their urban centers. The Federal Transit Administration has made 11 grants to cities for streetcar projects. The list is contained in the attached Figure 3.

31. Page 9, “Selling Streetcars.”

Mr. O’Toole seems to say that a former Portland city commissioner, Charles Hales (now Mayor of Portland) single-handedly persuaded a number of American cities “to build streetcars as a development tool.” If so, good for him. More likely, a number of factors and influences led these cities to their decisions, not just one man. Mr. O’Toole seems to view economic development as some sort of bogeyman. In Mr. O’Toole’s eyes, if a city employs different tools (including quality transit such as streetcars) to spawn economic development, especially in areas devoid of adequate housing, recreation and commercial activity, they just aren’t playing fair. As conservatives, we generally favor economic development, especially of run-down areas. A competitive America means that by-passed parts of this country regain economic vitality – as givers, not takers.

32. Page 10, paragraph 2, “Another oft-cited example of economic development following a streetcar line is the Seattle South Lake Union Trolley, which supposedly generated more than 13,000 new jobs. In fact, according to a Seattle low-income housing group, those new jobs were offset by lost jobs displaced by new development . . . and thousands of ‘new’ jobs were merely relocated from other parts of Seattle.”

Seattle is a great success! The South Lake Union area was part of a comprehensive plan to reshape the area with new zoning, a major park at the lake, and support for high density development. Since 2007 when the streetcar line opened, \$3.2 billion in private development has occurred. Amazon.com saw the value of the new planned area and has committed to locate its corporate headquarters there in a complex of eleven buildings totaling \$1.16 billion in development. The City of Seattle saw the value in the streetcar and is building the First Hill Line on Broadway connecting to Pioneer Square, planning an extension of First Hill north and planning a connection to South Lake Union via First Avenue and the new waterfront. Amazon is so committed to the streetcar for its employees that they have provided \$5.4 million to the City to purchase an additional vehicle and pay for operations to assure 10 minute frequency on the South Lake Union line.

33. Page 10, paragraph 3: Mr. O’Toole condemns as circular reasoning that “cities need streetcars to attract high-density development; streetcars need high-density development to attract riders; and both need subsidies.”

These are facts, not syllogisms, and the phenomenon they describe is mutual reinforcement, not circular reasoning. As to both needing subsidies, why does Mr. O’Toole not mention the massive highway and related infrastructure subsidies required by greenfield suburban developments? The incentives (subsidies) required by high-density infill developments and streetcars to serve them are far smaller.

34. *Page 10, paragraph 4: Mr. O’Toole chides transit for not carrying freight (no, this isn’t a misprint). Mr. O’Toole states that, “...the Obama Administration granted more [TIGER] funds for transit than for highways even though highways carry nearly 100 times as much passenger traffic, and far more freight than transit.”*

Shockingly, Mr. O’Toole missed an opportunity to say something bad about transit. He claims only that highways carry “far more” freight than transit, where he could have said “an infinite amount,” since transit does not carry freight (just people). We might also point out that highways receive about 84% of federal transportation dollars annually, certainly the lion’s share by any measure.

35. *Page 10, paragraph 6: “Even to the extent that a streetcar, by itself, can enhance the value of nearby properties, it is likely that such an enhancement is at the expense of other property owners in the region.”*

Mr. O’Toole displays a profound bias against economic development in the urban core and especially local governments’ activities to channel development where it is most needed and where cost to the public for providing infrastructure is much less than for greenfield developments. By this logic, economic development anywhere should be precluded as a zero sum game. The reality is that more productive and competitive markets represent net economic gain. The economic and cultural health of an urban region depends heavily on the prosperity of the urban core. Investments, including streetcars, which are successful in revitalizing downtowns benefit the whole metropolitan area and its property owners. Or does Mr. O’Toole perhaps prefer Detroit’s situation to Portland’s?

36. *On page 12, paragraph 2, Mr. O’Toole says, “Transportation projects only truly produce economic growth when they provide transportation that is less expensive, faster, and/or more convenient than what was previously available.”*

We are reminded of an old saying from the Army: “fast, good, cheap: you get two.” Transportation projects can produce economic growth when they provide more attractive transportation. “More attractive” includes both rational and non-rational components. People’s reaction to streetcars demonstrates that many find streetcars to be more attractive than alternatives, especially buses. General Motors understood this when they led a massive effort to convert streetcars to buses in the 1930s and 40s; their purpose was to push people into buying cars. In Central Europe, where the streetcar flourishes, Munich transportation planners talk of the tram “bonus” when they convert a bus line to streetcar. There they expect (and get) anywhere from a 25% to 50% surge in ridership with the tram over the previous bus line. European city planners routinely use rail transit lines to bolster and channel economic growth.

37. *Page 12, paragraph 3, “The Interstate Highway System increased the value of properties that it served.”*

In the case of land zoned commercial that was previously open space, this is true. It is false with regard to residential property. According to Policy and Planning as Public Choice: Mass Transit in the United States, by David Lewis and Fred Laurence Williams (Ashgate Publishing Co., Burlington, VT, 1999), in the San Francisco Bay area community of Pleasant Hill.

The research shows that single family homeowners are willing to pay, on average, nearly \$16 in home price for each foot closer to BART within the study area . . . Alternatively, homeowners are willing to pay nearly \$8 in home price for every foot farther away from the freeway interchange . . .

38. *Page 12, paragraph 4, “Streetcar proponents are proud that most streetcar riders do not represent new travel but instead are drawn from other forms of travel, such as buses or cars, that are, in fact, less expensive.”*

Yes, we are proud that many streetcar riders are drawn from cars. Since most Americans drive alone, each of those riders represents a car withdrawn from city traffic, reducing congestion and unnecessary energy consumption. Cars are not less expensive in cities, where they inflict many costs, including air pollution and land wasted for low-value surface parking. Cars also discourage pedestrian traffic, which is the lifeblood of cities. All over the world, cars and cities are a poor fit, something the Chinese are now painfully discovering.

39. *Page 12, paragraph 5: “If streetcars were truly worthwhile, the people who ride them would gladly pay all of the costs of building, operating, and maintaining the lines.”*

By the same logic, if cars were truly worthwhile, their drivers would gladly pay all the costs associated with them. Since all highway user fees cover only 51% of the direct costs of highways, drivers must be besieging Congress to demand at least a doubling of the gas tax.

40. *Page 12, paragraph 5: “But given a choice between paying \$5 to \$10 for a single streetcar ride and \$2 to \$3 for a bus ride, few people will choose the streetcar.”*

The \$2 to \$3 figure for a bus ride does not include the many subsidies that buses receive. Nationwide, bus transit service covers only 28% of its operating costs out of the farebox; the rest is subsidy. In Portland, the ratio is slightly higher at 32.6%. Rail transit nationally covers on average 50% of its operating costs from fares. In Portland,

it is 60.6%. Buses receive a further subsidy in that the roads they run on are built and maintained with public funds. We are puzzled how Mr. O'Toole, who like all good libertarians is death on subsidies, could have missed all these subsidies to buses and thus greatly understated the real bus fare compared to streetcars.

41. *Page 13, paragraph 2: "Capacity per vehicle, however, isn't the true measure of a transit line's capacity. Instead, what counts is the capacity per hour. For safety reasons, streetcars cannot operate closely together; Portland's system allows no more than 20 railcars or trains per hour. . . . In contrast, a single bus stop can serve 42 buses per hour, and Portland's downtown area features staggered bus stops that allow 160 buses per hour. . . . Counting only seats, the double-decker buses can move 13,600 people per hour, five times as many as a streetcar line. "*

Stop the presses! Mr. O'Toole's theoretical Portland buses have matched New York's subway service level. They would appear every 1.4 minutes. We'd surely like to see the passengers dashing on and off this mythical bus as there would be little time to decelerate, open the doors (or close them for that matter) and accelerate away from the stop. The 160 buses per hour translate into a bus every 22.5 seconds. Since we would want to insure safe braking distances between vehicles, the speed attained by these buses would be low indeed. The capacity of any transit line depends not only on vehicle capacity but also on acceleration and deceleration rates, station dwell times, traffic light timing, and assumed traffic conditions (do we have a grade separated right of way?). And, of course, we need to take into account those pesky passengers (who aren't Olympic runners).

What about double decker buses? If well patronized, they are nightmares to load and unload, leading to ungodly stop dwell times. There is also a safety issue with passengers negotiating a steep set of stairs. Double deckers also require a two-man crew, boosting labor costs. And there are security issues for those riding on the upper deck. London has phased its famous routemaster double deckers out of regular service for these very reasons.

42. *Page 13, paragraph 3, Operating Costs, "Streetcar advocates claim lower operating costs, apparently using the logic that one streetcar driver can move 134 people, while one bus driver can move only 57 people.*

Since labor is by far the largest expense in any transit system's budget, streetcars' ability to carry more than double the number of number of fare-paying passenger per operator is significant.

43. *Page 13, paragraph 7, "Rail transit lines require much more maintenance than buses, which share infrastructure with autos and trucks."*

Rail transit has much higher system costs (operating costs plus rail's share of general administrative costs) than bus service per vehicle hour. But the system cost per boarding ride is \$2.35 versus \$3.81 for buses. Likewise, the fare recovery ratio for system costs for Portland's light rail is 44.2% versus 24.8% for buses. This reflects the overall efficiency of rail and its superior drawing power for increasing passenger volumes.

Mr. O'Toole seems to think that only rail transit systems wear out and require rebuilding every 20 to 30 years, while highways (and other transportation infrastructure) don't require maintenance (or rebuilding). The fact that highway maintenance costs are not included in bus systems' budgets does not mean they don't exist.

44. *Page 13, paragraph 8, "Of course, streetcar capital costs are also much higher than bus costs."*

The capital cost of a streetcar does exceed the cost of a bus but the streetcar lasts up to three times longer. Amortizing a streetcar (which can carry twice as many people as a standard 40 ft. bus) over a thirty year period makes for a thrifty investment. You can put twice the number of buses on the street to try to replicate the streetcar service but labor costs explode accordingly (as does congestion on that bus route). Labor costs are a current cost, as cities and transit operators well know, and they constitute the largest part of any transit budget. Would Mr. O'Toole want to spend money needlessly in an attempt to prove a point?

45. *Page 14, "Energy Costs."*

Mr. O'Toole completely neglects the fact that automobiles run on gasoline. We currently import 40% of our oil needs on an annual basis. Not only is that imported oil a major contributor to our trade deficit, half of it comes from unstable parts of the world. Defending our (and our friends') oil supply is estimated to cost \$200 billion to \$300 billion a year - - and far more if protecting the sources of our oil involves us in another overseas war (the combined sunk and projected costs of the Iraq War, including care of wounded veterans, is about \$3 trillion). In contrast, alternative fuel buses, most of which run on domestically-produced natural gas, make up about 35% of the transit bus fleet and will represent 50% of all new bus deliveries by 2015. Both light rail and streetcars are powered electrically and require no imported fuel. As to the energy required to construct light rail or streetcar facilities, Mr. O'Toole curiously fails to mention the energy costs of building highways, surface parking lots, parking garages, etc. Perhaps all that energy comes from perpetual motion machines.

Mr. O'Toole also would have us believe that rail transit has higher energy costs than highway transportation by comparing the life cycle energy costs of rail and highways. However, viewed another way, the Department of Energy's Transportation Energy Data Book shows that transporting one passenger one mile by rail consumes 2,520 BTUs while moving one passenger one mile in a car consumes 3,447 BTUs. One might thus consider the staggering magnitude of actual energy use by simply comparing the number of automobiles in this country (over 137,000,000) versus the number of transit buses and railcars (about 90,000) to conclude that this is another O'Toole red herring.

46. Page 15, Paragraph 2, "Air Pollution."

Streetcars run on electricity. With the dramatic increase in natural gas availability, a corresponding drop in natural gas prices and new EPA rules discouraging use of coal, power companies are switching to natural gas to generate electricity. Natural gas is significantly less polluting than coal, gasoline or diesel fuel. In addition, air pollution is not a uniform problem for many urban areas. Usually, the problem is worse in the center city, where automobiles and trucks (and to much lesser, extent, buses) are a major source. Power generation facilities are usually located away from the central city, and often far from the urban area as a whole. Mr. O'Toole's narrative reads as though only transit vehicles cause air pollution even though auto emissions exponentially dwarf the pollution amounts attributable to transit vehicles.

47. Page 15, paragraph 5, *Rail vs. Bus*, "Rail transit proponents rely heavily on a myth that many people will ride railcars who won't ride buses. They use the term "quality transit" as a euphemism for rail transit, implying that buses are not quality transit. Apparently, "livability" not only means you don't have to have a car, but you don't have to lower yourself by taking a bus either. Taxpayers are supposed to cater to such snobs by providing them with rail alternatives that cost many times more than buses."

Transit, to be successful, has to be able to lure people out of their cars. By definition, transit dependent riders will take transit as a matter of necessity. But if transit ridership is to expand, it must be attractive to the choice rider, people who have a car and can drive. The choice rider's preference for rail over buses is fact, not myth. It is demonstrated in city after city by comparing the percentage of choice riders on rail transit versus the percentage riding buses. Buses also do play a role here. Higher quality bus service can play a synergistic role in boosting overall transit ridership in the role as feeders to rail transit. The snobs are those who insist on driving alone when high quality transit is available.

With regard to economic development, many studies have shown that choice riders have higher amounts of disposable income, a factor that is important to developers. Since choice riders are attracted to rail due to the reality of superior service, rail offers a viable opportunity for savvy developers. That is why rail transit lures economic development.

48. Page 15, Paragraph 7 , “ Private intercity bus companies such as Bolt Bus have shown that buses can offer high quality service, with leather seats, on-board wi-fi, and power outlets for laptops and other electronics.”

Mr. O’Toole here plays the old game of bait and switch. The bus services he describes are long distance, intercity buses, not local transit buses. What intercity buses have to do with streetcars is a mystery to us. Companies may be able to offer long-range commuter service without subsidies on a few routes, but the vast majority of urban bus routes do not operate at a profit. Nor can urban transit buses offer comfortable seating, since it would mean fewer seats per bus, further lowering buses unfavorable farebox recovery ratio. Buses are also hampered by the four wheel wells which permanently reduce the space available for seats (and standees). Heavy rail, light rail and commuter rail can easily add more capacity without adding more operators (as previously mentioned, labor is transit’s biggest operating expense) by adding cars. Buses cannot. As always, Mr. O’Toole here assumes highways are free.

49. Page 16, paragraph 2, “In fact, most transit lines carry so few people that they are, at best, ignored by developers. Some developers actually count transit as a negative, not a positive, factor in their location decisions, saying it can bring in vandals, burglars, and other criminals.”

We’re not sure which world Mr. O’Toole is describing but it is an appalling one. We would be the first to admit that transit is not immune to crime. That is why many transit authorities employ transit police or contract with local police to patrol stations and vulnerable areas. However, Mr. O’Toole seems to be saying, and not to his credit, that crime and transit go hand in hand. Statistics show that his statement is blatantly wrong. Transit is among the safest of modes. Your chances of experiencing crime on transit (rail or bus) are no greater than in the larger population. Connecting transit to crime serves no purpose other than to diminish and cheapen the message being dispatched by the sender.

Developer after developer has shown confidence in transit, especially rail transit, in city after city. Portland’s experience demonstrates that both streetcar and light rail are associated with more development in proximity to transit stops than for areas not served. While development along the streetcar lines in Portland and Seattle has gained the greatest publicity (and success), developers in Washington, DC’s H street, NE corridor readily point to the streetcar as one reason why they decided to locate projects

in that corridor. A recent article found that the Tucson streetcar (slated to open in 2014) had already sparked \$150 million in private investment with an additional \$100 million expected in the coming year. The article also projected that an additional \$1 to \$2 billion in private investment in the downtown core could be expected over the next ten years. Solid examples also abound in other cities planning streetcar projects (Cincinnati, Milwaukee, Salt Lake City, Los Angeles, to name a few).

50. *Page 16, paragraph 5, “Rogoff [FTA Administrator] noted that, “Paint is cheap; rail systems are extremely expensive. While many people like trains,” he continued, “it turns out you can entice even diehard rail riders onto a bus if you call it a ‘special’ bus and just paint it a different color than the rest of the fleet.”*

Riders aren't that stupid. You may attract a significant number of riders from choice on a real busway like that recently opened on Cleveland's Euclid Avenue, but such busways cost as much or more to build than a streetcar should cost. Simply painting a line on the road and calling it a busway does not work, because it does little to improve service characteristics. Even real busways have higher operating costs than rail transit because of the low, fixed ratio of seats to operators.

51. *Page 16, paragraph 6, Conclusion, “City officials who believe that streetcars alone will revitalize blighted parts of their urban areas have been deceived by smooth-talking consultants and dissembling politicians who were foolish enough to build streetcars in their cities.”*

We meet our favorite straw man for the last time. We know no city officials who believe streetcars alone will bring urban revitalization. We do know many who not only believe but know from experience that streetcars are a useful component in re-developing decayed urban areas into places people choose to visit and live in rather than avoid.

52. *Page 16, paragraph 7, Conclusion, “Streetcars are a long-obsolete technology.”*

No technology that works is obsolete. If mere age dictates obsolescence, successful streetcars date back only to 1888, while roads go back thousands of years. Applying his own logic, we cannot understand why Mr. O'Toole favors a technology used as far back as the Roman Empire - - and one that requires massive subsidies both for construction and maintenance.

Mr. O'Toole's 52 mis-statements in a mere sixteen pages may or may not be a record for a libertarian anti-transit study; if it is a record, it is one we are sure they will soon break. Why are studies by the anti-transit troubadours so error-filled? That's what happens when you start with a conclusion - - rail transit is bad - - and then somehow have to come up with "evidence" to fit.

To officials in cities considering new streetcar lines, we would address a question: who is probably right, a handful of ideologues whose motto is "sentence first, verdict after" or the officials of numerous cities who have carefully investigated the merits of streetcars and decided their cities would benefit from them? Look at the evidence. We think the answer is obvious.

Figure 1
Development Activity within the
Portland Streetcar Local Improvement Districts
April 2008

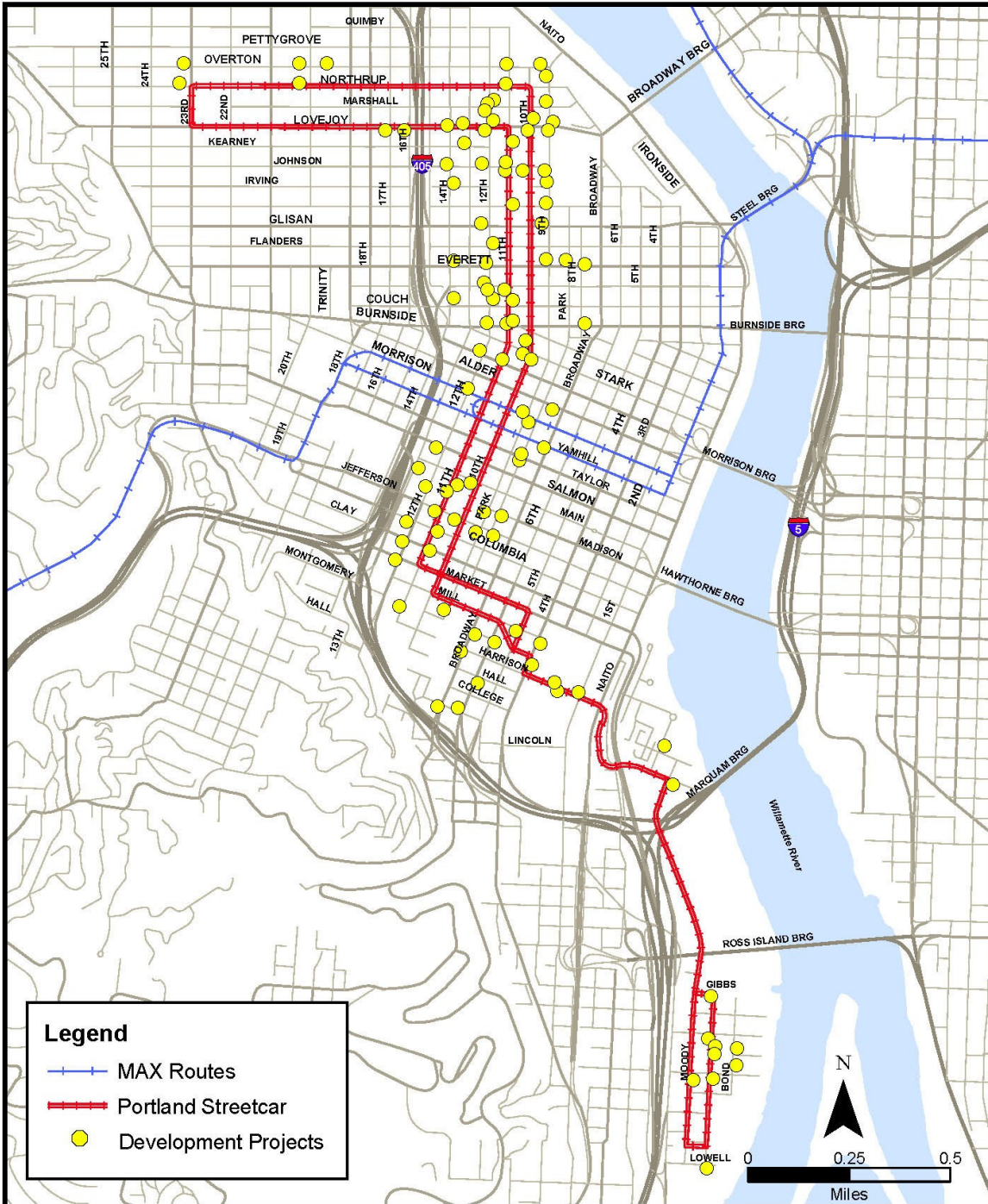


Figure 2



[Charlie Hales](#) on Sunday, February 12th, 2012 in an interview. ***Says "streetcars carry more people than buses ... you attract more riders who don't ride transit now, and actually the operating costs are not any greater than the bus."***

Do streetcars really beat out buses in capacity, ridership and cost?



The Truth-O-Meter Says: Portland mayoral candidate Charlie Hales is well known for his support of streetcar projects. He promoted them in Portland during his time as a city council member, then ended his term early to go help other cities start their own.

Hales hasn't advocated expanding the city's system during his current campaign, but the subject keeps coming up. During an appearance on Oregon Public Broadcasting's "Think Out Loud," Hales explained why he's so keen on street cars.

It comes down to three things, he said: Because "streetcars carry more people than buses. Because you attract more riders who don't ride transit now. And actually the operating costs are not any greater than the bus. The trick is coming up with the very large capital cost."

These sorts of talking points get thrown around a lot by rail-system advocates. We thought it was high time we checked it out.

Our first call was to Hales' campaign. His spokeswoman, Jessica Moskovitz, sent us a thorough e-mail outlining the support for the various pieces of the statement. Before we get to all that, though, let's start with TriMet when spokeswoman Mary Fetsch.

On whether streetcars carry more people than buses, there is no ambiguity. Streetcars have a maximum capacity of 92 riders, according to Fetsch. That's nearly double the 51 or so riders who can fit on a single bus. (It was clear during the interview that Hales was talking capacity here and not the actual number of riders.)

The next part was about whether streetcars have a smaller operating cost. Naturally, our minds went to the huge down payment a city has to make on tracks, whereas a bus can use existing roads. But Hales was careful to take that out of the equation by acknowledging the startup costs. It's clear he was talking about day-to-day operation. On that point, he seems to be right again.

According to Fetsch, the streetcar operations cost \$1.50 per boarding ride, while the bus costs \$2.82. Now, there are a few important caveats here. Portland's streetcar system is much smaller than TriMet's bus and MAX systems. That's

important because those two systems require a command center, which deals with dispatch and customer service. The streetcar also ducks security charges -- Portland police take care of the streetcar while TriMet has to budget for the Transit Police Division.

You also have to consider the fact that the streetcar serves just the city core, while the MAX and bus systems operate in the low-density, outer areas and run both earlier and later.

The last bit of important context here, too, is that the streetcar system requires fewer maintenance expenses: It's younger and it runs at lower speeds, so it has less wear than the MAX and bus system.

That leaves us with the last bit: Do streetcars really attract riders who don't typically take public transit?

Moskovitz, the spokeswoman for Hales, pointed us to a study by Edson Tennyson for the National Research Council on the issue of rail transit. Tennyson concluded that, all things being equal, "rail transit is likely to attract 34 percent to 43 percent more riders than will equivalent bus services."

There was a catch, though: That paper was written more than two decades ago. The only other source Moskowitz had was an article touting the increase in streetcar ridership.

TriMet, however, had two pieces of pertinent information.

First up, between 2000 and 2003, bus stops within a sixth of a mile of the streetcar saw ridership drop by 20 percent when the rail went online. Meanwhile, the streetcar ridership grew well beyond that drop, indicating the system was attracting more people than just those who would have ridden the bus. Second, according to a June 2011 rider study, 38 percent of occasional and infrequent riders exclusively used the MAX, while only 12 percent exclusively used the bus. Of course, the MAX is not the streetcar, but this fact seems to speak to the attractiveness of rail travel over bus for some transit users.

While the data are somewhat old and somewhat tangential, taken together they seem to support Hale's claim that the streetcar attracts more infrequent riders.

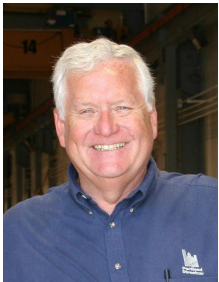
So that brings us to the ruling. Hales said "streetcars carry more people than buses...you attract more riders who don't ride transit now, and actually the operating costs are not any greater than the bus." Whether these arguments make a persuasive case for the necessity and usefulness of a streetcar system is, of course, up for debate. The statement itself remains factual. While, there's some missing context, it's nothing significant. We rate this claim True.
<http://www.politifact.com/oregon/statements/2012/apr/03/charlie-hales/do-streetcars-really-beat-out-buses-capacity-rider/>

Figure 3

| Federal Funding for Streetcars | | | | |
|---------------------------------------|---------------------|------------------------|-------------------|----------------------|
| | City | Federal Program | Award Date | Federal Funds |
| 1. | Portland, OR | Small Starts | 10/22/2009 | \$75 million |
| | Portland, OR | TIGER I | 2/17/2010 | \$23 million |
| 2. | New Orleans, LA | TIGER I | 2/17/2010 | \$45 million |
| 3. | Tucson, AZ | TIGER I | 2/17/2010 | \$63 million |
| 4. | Dallas, TX | TIGER I | 2/17/2010 | \$23 million |
| | Dallas, TX | Urban Circulator | 7/8/2010 | \$5 million |
| 5. | Charlotte, NC | Urban Circulator | 7/8/2010 | \$25 million |
| 6. | Cincinnati, OH | Urban Circulator | 7/8/2010 | \$25 million |
| | Cincinnati, OH | TIGER III | 12/15/2011 | \$11 million |
| 7. | St Louis, MO | Urban Circulator | 7/8/2010 | \$25 million |
| 8. | Atlanta, GA | TIGER II | 10/20/2010 | \$48 million |
| 9. | Salt Lake City, UT | TIGER II | 10/20/2010 | \$26 million |
| 10. | Fort Lauderdale, FL | TIGER IV | 6/22/2012 | \$18 million |
| 11. | Detroit, MI | TIGER | 1/18/2013 | \$25 million |
| | TOTAL | | | \$437 million |



Glen D. Bottoms serves as Executive Director of The American Conservative Center for Public Transportation. In this position, he has written numerous article and op-eds in support of transit in the U.S., especially rail transit. Mr. Bottoms holds a Bachelors Degree from Auburn University (1966) and a Masters Degree in Public Administration from George Washington University (1977). He is a retired federal executive, having worked for the Federal Transit Administration for twenty-five years. Mr. Bottoms also served for five years on the International Staff of the North Atlantic Treaty Organization (NATO) in Brussels, Belgium. Mr. Bottoms is US Army veteran and served thirty years in the US Army Reserves. Glen served as Editor of the Transportation Research Board (TRB)'s Light Rail News in the 1980's. Glen currently serves as Secretary to TRB's Subcommittee on Light Rail Circulators.



Rick Gustafson is Vice President of Shiels Obletz Johnsen, a project management firm with offices in Portland and Seattle. Mr. Gustafson joined Shiels Obletz Johnsen in 1987 and serves as a principal in the company. Mr. Gustafson holds a Bachelors Degree in Economics from Yale University and a Masters Degree in Urban Economics from Wayne State University. Mr. Gustafson has extensive transportation project experience with Shiels Obletz Johnsen. He participated in initial streetcar feasibility studies as early as 1990 and has served as the Chief Operating Officer for the streetcar operation since its opening in 2001 and has also served as Executive Director since 2006. He has led numerous projects for streetcar development including new expansions for the Portland system, vehicle manufacturing, feasibility for other cities, and operational plans for many other cities. He is currently working with HDR Engineering to provide program management services for the development of the DC Streetcar System. He was also the lead consultant for the City of Portland in developing the Central City Transportation Management Plan.



Principal Eric Hovee founded the consulting firm E. D. Hovee & Company, LLC in 1984 to provide economic and development services to public agencies, non-profit organizations and private clients. As principal of the firm, Mr. Hovee conducts economic and market research, facilitates community and business assessments, prepares economic development and diversification strategies, and assists in project implementation. Mr. Hovee has been actively involved in both transit and housing related development over the course of his professional career. He has conducted TOD assessments for individual station areas and entire corridors in the Portland, Seattle, Boise, Reno, Santa Ana, San Antonio and Newark metro areas. Transit modes and facilities covered include light and heavy commuter rail, streetcar, bus rapid

transit, and conventional bus including bus/light rail transit mall reconfiguration. Prior to consulting, Mr. Hovee worked for the City of Vancouver, Washington, as Economic Development Manager and for the City of Portland, Oregon, as Economic Development Coordinator.



William S. Lind serves as Director of The American Conservative Center for Public Transportation, Washington, DC. After receiving a bachelors' degree from Dartmouth College in 1969 and a Masters Degree from Princeton University in 1971, Mr. Lind joined the staff of then-Senator Robert Taft, Jr. of Ohio, where his responsibilities included transportation policy. In that position, he organized the coalition that restored Amtrak's Lake Shore Limited with service to northern Ohio. From 1977 through 1986, he served on the staff of Senator Gary Hart of Colorado.. In 1987, Mr. Lind joined the Free Congress Foundation, where from 1988 to 1996 he served as Associate Publisher of The New Electric Railway Journal. From 1997 to 2008, he co-authored, with the late Paul M. Weyrich, a series of studies on conservatives and public transit. These studies were released in book form in 2009. The book, published jointly by Free Congress Foundation and Reconnecting America, is entitled Moving Minds: Conservatives and Public Transportation. It has been described as the "how-to" for demonstrating to conservatives that public transportation is worthy of their support. Mr. Lind retired from Free Congress in December 2009. The American Conservative Center for Public Transportation is affiliated with The American Conservative magazine and operates under the auspices of The America Ideas Institute. Under Mr. Lind's leadership, the Center is seeking to redefine public transportation, especially rail transit, as a non-partisan, non-ideological infrastructure issue. In addition to his work on rail passenger transportation, Mr. Lind is widely known as a writer and lecturer in the fields of military theory and doctrine and also politics and culture.