

**Interviewer:** You mentioned in your first email that the 1956 Federal-Aid Highway Act did not actually create the interstates because it only provided a financing scheme for the project. However, the act was still very crucial to the making of the interstates, as it was the last piece of the puzzle. Could you elaborate on the importance of the act and how it can be considered as a major turning point in transportation history?

**Swift:** Well, you know, '56 was kind of a bellwether year for transportation in two ways. Not only did you have the Federal-Aid Highway Act, which, as you know, provided the financing scheme, but you also had the advents that very same year of container shipping. Until 1956, freighters carried freight in a totally different way. That year saw the creation of shipping containers for the first time. And those might seem two separate issues, but really, the shipping container is one of the reasons the interstates have proven so important, because it gave us the ability to move goods with much greater efficiency from ports to points inland a couple thousands miles away, with speed that was unimagined in the decades prior to those two developments. In terms of the interstates, the interstates, of course, by 1956 they had been around for twelve years – Congress approved them around Christmas of 1944. It authorized the system that was part of the Federal-Aid Highway Act of 1944, and what you have in '56 is kind of a compromise financing scheme that was developed by a couple of congressmen (the Eisenhower administration had nothing to do with it, or had very little to do with it.)<sup>1</sup> The guy most responsible in Congress for putting together the package was a guy named George Fallon – George H. Fallon of Baltimore. He worked with a technocrat from the Bureau of Public Roads named Frank Turner, and Turner was kind of his expert advisor of putting together the financing. And the system had been financed in 1953 and 1954 while Truman was in office, but they were just token amounts. '56 created the highway trust fund, which is what financed the construction of the system, and continues to finance the construction, and heavy finance, of the system today (although it desperately needs an overhaul.)

**Interviewer:** The way you finished off that last question actually leads very well into the next one. The financing scheme that made the 1956 Federal-Aid Highway Act unique was the concept of a trust fund. Could you elaborate on the specifics of this trust fund concept and why had no previous financing plans before it been [successful?]

**Swift:** Well, the financing schemes that come before, mainly in 1955...but first of all, a little bit of history: the feds and the states had shared the costs of highway construction since 1916, that's when the Federal-Aid Roads Act of 1916 was passed, and that's when the whole idea of "federal aid" came in. And as originally conceived, the feds would pay fifty cents on every dollar spent on highways that the states deemed important, and the problem with that 1916 act was there was no coordination among the states, between the states. So the states would choose which projects

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<sup>1</sup> To clarify this point: in his book, *The Big Roads*, Earl Swift writes, "...[The 1956 Federal-Aid Highway Act] bore little resemblance to the bill Ike had sponsored; the chief contributor to the system's financing in the executive branch wasn't the president, but [a technocrat named] Frank Turner. ...Eighteen years after Thomas MacDonald and Herbert Fairbank first committed them to paper, a dozen after Congress formally created them, the interstates were at long last on the way" (187).

to improve and the feds would pony up fifty cents for every dollar, but the feds never really got a say in exactly where the money was going to be put to use – everything was deferred to the states. In 1921, The Federal-Aid Highway Act of 1921 created a modification to that scheme – the feds still paid fifty cents of every dollar spent on federal-aid highways, but now the states had to basically justify the projects to the feds. There was an overarching, kind of federal oversight of the whole thing, and that led, in 1925, 1926, to the creation of the numbered U.S. Highway System. You know, U.S. 1, which I imagine goes up near where you guys are, would be one of the numbered U.S. highways. There are one hundred of them, or more, around the country, and they held the states to a much higher standard of coordination between each other, with each other – it built a system. So 1921 was kind of the, in many ways, the most important year for highways in American history. That's when the whole system was really put in place that we're still using today. In 1956, it was pretty clear that the fifty-fifty arrangement (you know, fifty cents on every dollar) was still going to bankrupt any state that attempted to build interstates. The roads were so much more expensive; the acquisition of land for the roads was so much more expensive. The states simply couldn't pay half the cost of building this new system of highways, and so they came up with a different model. The feds would supply ninety cents of every dollar spent, and the states would have to come up with ten percent of the construction cost, and as initially conceived, would finance all of the maintenance costs on the back end. The feds would have no responsibility for keeping the highways up. What you saw before '56, were a couple of competing ideas on how to get to generate that ninety cents from the federal share. The Eisenhower administration, the president himself, wanted self-liquidating highways, which is highways that pay their own way, that generate their own income, and thereby pay their expenses. And the most familiar way to do that is with tolls. It was Eisenhower's belief that a self-liquidating system was the only one that made sense. A group of Congressmen... before we get into Congressmen, Eisenhower appointed the Clay Committee that was headed by one of his old army buddies, Lucius Clay, an army general. His committee suggested that the system could be bonds financed, and that was shot down by members of Congress who did not want to see the country go into debt to pay for the roads. It looked like it was going to be a pretty doggone big debt. So the Congressmen came up with a hodgepodge of ideas on how the financing might be put together, and George Fallon in 1955 actually put together a program that was similar in most respects to what was finally passed in 1956. What it called for was the financing of the highways through an increased tax on gasoline, on retread rubber from truck tires, lubricants, all sorts of automotive-related goods. Much to everyone's surprise, that was defeated largely because of opposition from the trucking industry. And so 1956 came along, and really, the new aspect of the '56 legislation versus the year before was the creation of a trust fund, to dump all the increased tax money into. And the idea was that it would not exceed the amount of money available in the trust fund for construction of the system. So for whatever reason, people bought less gas one year and the trust fund did not generate as much income – as expected, you would have to dial down construction on the interstate to meet the budget, to not exceed the amount that you had in the kitty. And by putting the, by creating a trust fund and setting it kind of outside the federal budget, you ensured that the system would not overrun itself, that it would stay within its needs. It was as close as you could get to having self-liquidation in the sense that you did not go into debt with a trust fund – it was financed straight out of taxes, so pay-as-you-go sort of arrangement, which

was very unattractive to fiscal conservatives. It was a way of financing the system much the same way as a homeowner would finance improvements to his own home. It kind of took a concept that was familiar to a lot of regular tax payers and just blew it up a million times to the size required to finance what turned out to be a one hundred and thirty billion dollar highway system. If that answers your question Alex, that's as close as I can get off the top of my head.

**Interviewer:** That's a great answer. Now, shifting more towards the effects of the system. In your opinion, how directly was suburbanization caused by the creation of the interstate highway system?

**Swift:** It was hastened by the creation of the system, it certainly wasn't created. We've had suburbs for a long time, we've had suburbs since the late nineteenth century, and the original pattern of suburbanization in American cities was kind of a radial wheel spoke sort of pattern. It was created by the advent of the trolley car, the streetcar. Streetcar lines tended to radiate outward from a central hub – streetcar companies often worked in close association with real estate companies, in fact sometimes were owned by real estate companies that wanted to develop early subdivisions out along their lines. It was a way to buy land cheap outside the city center – you could lay a streetcar to it and suddenly the land multiplied its value by a factor of ten overnight. So these guys were no dummies and by the 1890's, certainly by 1900, cities around the U.S. had suburbs blooming. By World War One those suburbs were pretty firmly established, and it would be hard pressed to find an American city that did not have them. What the car did was it filled in all the spaces between the spokes. If you were going to live in the suburbs back in the teens, say before World War One, or around World War One, chances are you did not own an automobile – most Americans did not. So you're going to live within walking distance of the streetcar line, and necessarily, the suburbanization was very tightly built around the streetcar lines. You could not get beyond a twenty-minute walk or...you know, the attractiveness of living out there just evaporated. So what the car did is it provided liberation from the strictures imposed by the radial spoke pattern of development – it allowed you to live pretty much anywhere. Now, one of the ways that suburbs changed with the advent of cars (and this was wholly unexpected by the developers of the interstate system) was that business no longer found it necessarily attractive to remain downtown. A lot of urban planners, a lot of highway people, pushed the idea of urban interstates back in the 40's, back in the 30's even, because at that point, traffic had become so bad in American cities that just getting downtown to go to work or to go shopping at the big department stores had become really burdensome. It was a huge pain in the neck to get down there – you'd get stuck in hours of traffic jams, you couldn't find any place to park – it was just a nightmare. And so what they thought would happen is that if you ease the way into downtown, it would inject new vitalities into the businesses there – they likened it to a human circulatory system. The way it was in the 30's, the cities were dying of thrombosis, the blood flow to their hearts had been cut off and you needed these interstates to reopen that flow. What happened instead was that once you have a system of radial interstates going into downtown surrounded by a big circumferential highway, a loop road around the edges, businesses realized 'Well hell! We don't need to be downtown, we can be out along the edge. We can avoid all that downtown nonsense. We'll build an office building out at the intersection of one of those radial interstates,

and that circumferential [one]. And sure, it's twenty miles from the center of town, but, you know, who cares!' And so you saw the appearance of what has since been called "edge cities," where you have basically a second, or a third or a fourth, downtown spring up out along the periphery. And that certainly was caused by the interstates – that's something that nobody saw coming and probably should have because it's kind of common sense that it would happen. You wouldn't have just a two-direction mode of travel any more into downtown and back out again. You'd have travel in every direction that an interstate allowed you to travel. Another way that interstates accelerated the process, establishing in sprawl, not suburbanization so much as the leapfrogging kind of exurbs, the distant suburbs that sprang up, especially in the 80's and 90's, is that this is a system of limited access highways that provide you with, as the name suggests, limited access. And you can get on and off the freeway only at certain points often, several miles apart from each other. So the kind of development that you see first springing up in an interstate is called "noded" development, in the sense that there is no point putting a business or a subdivision near an interstate if you're not near an exit. So the development is always near an exit at first and it kind of grows from there until finally the development around each exit kind of bleeds into the next and fills in all the holes. The process, because things are "noded," what happens is that the developer will buy land at one exit, thereby blocking other developers from buying land at that exit, and they'll be compelled to buy land at the next exit further out and other developers will then have to buy even further out than that. So you see this leapfrogging pattern where people are buying land farther and farther and farther away from the edge of town because that's the only place it makes sense to develop. Does that make sense?

**Interviewer:** Yes. How did the interstate highways cause a shift from local small businesses to chain businesses? You mention chain restaurants specifically in one part of your book.

**Swift:** Well, I mention it in quite a few places, you tended to see a pretty predictable chain of events occur at these points of "noded" development at these exits. The interchange economy has not always been "change." The interstates were built in the shadows of the numbered U.S. highway system, so with only a couple of exceptions, every stretch of interstate is within a couple of miles of a much older highway that has well-established towns and businesses along it. The numbered U.S. highway system, when it was first conceived, it drove right through the middle of every small town it encountered. Later on, they built bypasses around some of the towns, but generally speaking, you had businesses that were very close to the centers of population in these little communities. Then the interstates come along, and the interstates do not drill through the middle of town. They're bypassing towns by a couple or three miles. So what you saw happen was the traffic dried up on the numbered U.S. highway systems – it became strictly local and the through traffic moved out to the interstate, which was a heck of a lot faster and safer. Now it became necessary that those businesses that were in these little communities to go out to where the traffic was, which meant going out to the exits. So the first thing you saw in response to the interstate coming was little tiny downtowns all around the country losing their business to the exit. Ownership didn't change – usually it was townsfolk who were doing the opening for business add-ons on the side of the interstate. But, they were leaving behind established businesses in town to do so. So you see these little knots of interchange commerce

developing – mom and pop motels, mom and pop restaurants, that sort of thing. So that started happening immediately, and then what you see happen is that the constantly “noded” development restricts access, and because interstate travelers don’t want to go far off the highway to get a bite to eat or a place to stay – they don’t want to drive into town to do it, they want to get back on and be on their way as quickly as possible – efficiency and making good time, being the all and end all for interstate travelers – the value of land right at the interchanges began to skyrocket. And what you saw was that soon the only people who could afford to locate at the end of the ramp were big companies, they were chains. And so you saw gradually the mom and pop operations that had sprung up at the end of the ramp replaced one by one with chains, and this is a system that is designed to be above everything else. The idea is that a safe road is one that throws no surprises whatsoever at the driver, and so the interstates are designed to look exactly the same no matter where you are in the country. You leave Massachusetts; you’re going to find the interstates pretty much an unvarying experience clear across the country. What you see at the end of the ramp today is a reflection of the travelers desire for uniformity. This isn’t something that was hoisted on the American public; this was something the American public demanded – they demanded predictability in hotels, in meals, in everything associated with their travel. So you saw mom and pop shoved aside by McDonald’s mostly because the mom and pops could not compete, not only for land because it was so expensive, but because people didn’t go to the mom and pop restaurants – people pulling off the interstates drove into the McDonald’s lot. They voted with their wallets, and the winners were the same chains that they tended to patronize back wherever they came from, before they began their trips. There are a lot of factors that play into why it is that the interchange economy is so predictable now, and you know exactly what you’re going to see when you pull off the ramp. One of the big factors that people don’t talk about much, they talk about the economics of land use and such, the fact is that when you get on an interstate, you’re not getting on the interstate to site see, you’re getting on the interstate to get from point A to point B. You want to make good time, and making good time doesn’t just mean being able to drive seventy miles per hour, it also means not dillydallying around when you have to stop to go to the bathroom or to get a bite to eat. It’s getting in, getting out fast, and getting back on the road. And it’s kind of depressing that’s what people want.

**Interviewer:** You talked a little bit about truck shipment earlier; could you talk a little bit more about how truck shipment and ground shipment evolved as a result of the creation of the interstate highway system?

**Swift:** I really can’t in any sort of detail; I can tell you that if you go back and read *Toll Roads and Free Roads* – this is a 1939 report put together by the feds that really serves as kind of a very rough blueprint of the interstate system (1939) – there’s a section in there in about trucking in which they basically said, ‘We don’t think that long distance trucking is ever going to be much of a concern – we just don’t see that happening. Freight shipping is going to stay the province of trains, truck transportation is going to be strictly local, so we don’t see trucks making much of an impact on the system at all.’ So while its ironic now that you can barely go anywhere without being squeezed off the road by semis, but the guys who designed the system did not do it with some of the system’s most important users of today in mind, at all – they just didn’t think they’d

exist. But the interstates became very attractive to manufacturers because they offered them a way move freely without having to worry about railroad timetables, without having to worry about delays caused by track conditions. It puts you, if you're a manufacturer, in control of your own destiny, to a much greater degree – to locate a factory next to an interstate and ship at will than to be held hostage to a railroad company. So you tended to see major manufacturing concerns in the 60's and 70's all located outside the interstates. And you saw a lot of them located in the south where the labor was cheap and where access to the interstates was easy. The states were willing to accommodate factories with their own exits and things like that. So I can't speak with any kind of expertise about trucking per say because I did not really dig deep into it, but most of it's kind of common sense which should have been pretty easy to see it coming. Once you had the technology in terms of trucks, once you're able to build a fifty-three foot trailer, once you're able to build a semi that can pull the thing, it would prove to be a very attractive way to move freight, especially freight in limited quantities. If you're a coal manufacturer, you're not going to want to truck it; you're going to want to put it on a train. If you're moving a lot of stuff, trains of course make much more sense. But if you're moving five hundred boxes of [supplies], why not take it by truck – why not take it by a truck that can drive not only to the city that it needs to go to but pull up right at the Walmart loading dock and unload the stuff. Trucking is door-to-door transactions and railroads are not. That's pretty much all I have to say about that, I wish I had more expertise to help you with.

**Interviewer:** What role did trucking lobbyists play in the creation of the 1956 act?

**Swift:** Well, they helped kill the 1955 act, so they made the 1956 act necessary. I don't know that they played much of a role in the '56 act except that they decided to get out of the way of the legislation – they decided not to try to block it. There were tens of thousands of telegrams sent in '55 by the trucking industry to try to persuade, and successfully persuade, congress from voting for the original version of the legislation. I think that what happened, I think Richard Weingroff would agree, is that once they succeeded in blocking it they kind of looked at each other and said 'holy cow, we succeeded! What are we going to do now? We'd end up facing all these additional taxes, but we [have] no roads!' I think that they did a lot of soul-searching...[call interference]... the taxes were going to be necessary for people to improve business – they wind up the winner if they back the legislation and not the interstates, and they were able to take advantage of these new wonder highways. So they didn't have an active role that I'm aware of anyway. The public sentiment for the highways was very strong; this was one of those undertakings that everybody in Congress, by the time the book came around...[call interference]...their constituencies were very much pushing for. We complain about traffic now, do you guys drive?

**Interviewers:** Yah, we're just starting to drive.

**Swift:** Ok, well, then you're probably not going to have much complaining about traffic yet, but you'll get there. We complain about traffic now, but the...[call interference]...you see in America is kids stuff compared to the way it use to be. There were some pile-ups in Boston back in the 40's that are still legendary. There was one on Christmas Eve and people were stuck on the road

on Christmas morning – they were just titanic logjams of cars. Supposedly, at one point there was, in the 30's, a tie up at the George Washington Bridge that backed eighty-four miles. It's just crazy – it's mind-boggling! It would take you all day to try to drive out of town, you just couldn't get out of town, you couldn't get into the country – it just ensnarls. So the public was just fed up completely and they wanted better roads, and Congress knew that.

**Interviewer:** I'm not sure if you'd know a whole lot about this, but it's something we're trying to look into for our website. How did the interstate highway system in the United States compare and contrast with foreign transportation systems at the time of its construction?

**Swift:** At the time of its construction it was, far away, the most sophisticated highway system in the world. Really, there was no competition – you had the autobahns in Germany, which were a world system, designed in the 20's, 1928 I think is when construction started on the first leg. And so, pre-dated Hitler – it was not Hitler's system, contrary to popular belief – he kind of attached himself to it, made it his. The autobahns, one of the things that struck American engineers when they went to see it was the fact that nobody in Germany drove cars. This was not an automotive nation the way the United States was, but they had built this lavish system and it didn't go into the cities, it stayed outside the cities. It was pretty obvious to anyone with a brain that this was designed for something other than civilian transportation. ...[call interference]...it was pretty clearly developed to move armies. So it was a beautiful system but American engineers believed there was very little transferable intelligence that could [be] glean[ed] from the autobahns and applied to the U.S. system. The autobahns, that model, that world model, was very much what Eisenhower had in mind when he got behind the idea – this nation wide grid of superhighways. It was very close to the 1931 mission that Lewis Mumford and MacKaye offered in Harper's Magazine, in which they talked about a highway, and the idea was – they [designed] the modern interstate and this 1931 article. The autobahn model was very attractive to a lot of people, it was just that it didn't answer America's needs, which were overwhelmingly to relieve congestion in the cities, and had been for 50 years by the time [our] system was built.

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**Interviewer:** I just have one more quick question. So, we have a section on our website explaining the interviews that we've done, and I was wondering if you would allow us to use a picture of yourself on our website.

**Swift:** Sure, sure.

**Interviewer:** Ok, I know there's the picture on your website, so if I just do a Google search, that'll be fine?

**Swift:** Yah, you want to credit it to Saylor Denney.

**Interviewer:** Ok, well thank you very much for your time! It's been a great help; you've answered a lot of questions.

**Swift:** Well, I hope it helps a little at least, and best of luck with your project! And if you have any other questions, drop me a line and we'll do this again!

**Interviewer:** Ok, definitely! Thanks a lot!

**Swift:** Take care.