

SKYBUS

Pittsburgh's Failed Industry Targeting Strategy of the 1960s

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Pittsburgh like most large metropolitan regions in the past half century has undertaken a variety of economic development strategies, the most heralded and analyzed was the "Renaissance" that began in the late 1940s and extended into the 1960s. Renaissance emphasized the redevelopment of downtown, the clean-up of the environment, and the improvement of infrastructure as a means to make the city and region more attractive to business. The attention paid to these aspects of Renaissance has often overshadowed more specific efforts aimed at industrial development, which were also part of the Renaissance program. One strategy, for example, followed conventional lines of surveying the region's industrial base, determining companies' needs, inventorying available sites, and actively promoting the retention and attraction of companies. The Regional Industrial Development Corporation (RIDC) and its successful industrial parks evolved from this approach.¹

Another strategy was industry targeting. In the 1960s and early 1970s public and private leaders mounted a substantial effort to promote the Pittsburgh region's existing transportation industry as a center for the emerging urban rapid transportation market. The promotion of a specific industry through local policies and actions is often called industry targeting. Industry targeting is a means to strategically plan economic development efforts and focus limited resources. Civic leaders identify an industry in which a region is believed to have a comparative advantage and shape policies that develop the targeted industry and/or attract new companies of that industry, thereby expanding the economic base of the region. The creation and implementation of a program and policies to develop the targeted industry inherently involve politics. Industry targeting programs also involve business, labor, and government, each with its own interests, constituencies, and goals. In addition to the methodological problems of selecting an industry that may succeed locally in the national or global market place, achieving consensus among interested parties, or at least enough consensus to enact and carry out expensive public programs, presents major difficulties for policy makers.²

The selection of the rapid transit industry for targeting in the 1960s addressed two issues for the Pittsburgh region. Despite national acclaim by 1960 for its Renaissance redevelopment program, much more needed to be accomplished in the quest to reposition Pittsburgh for the second half of the century. In addition to improvements in housing and cultural facilities, economic diversification and mass transportation remained at the top of the civic agenda. Industrial development efforts had not substantially diversified the region's manufacturing base, which was recognized as late as 1963 to be still perilously concentrated on primary metals.³ At the same time, the success of new expressways from fast growing eastern and western suburbs to downtown and a network of public parking garages had aggravated traffic congestion, as commuters fled a fragmented number of independent transit providers for the privacy of their automobiles. The metropolitan region needed an effective mass transportation system.

With nearly twenty years of fruitful, indeed unprecedented, coordinated civic action, as well as the perception of being a leader in urban renewal in post-war America, Pittsburgh's civic leaders did not hesitate to address the daunting transportation and economic diversification problems. Rapid transit became the solution for both issues.⁴ Operating within the city's typical Renaissance framework, corporate executives and public officials formed a working partnership. Allegheny County became responsible for developing the rapid transit system, and non-profit organizations with the backing of Richard King Mellon and the Allegheny Conference on Community Development undertook the promotion of the local industry. They created a three-pronged transit strategy by the mid-1960s: (1) build an innovative rapid transportation system for Allegheny County, (2) use it as a showcase for testing and marketing rapid transit hardware developed by Pittsburgh based corporations, and (3) promote the city as a center of the rapid transportation industry.

For the innovative system, they settled on Westinghouse's automated, rubber-tired vehicle running on a separate elevated, cement guide way, dubbed "Skybus." The public/private partnership assiduously pursued its rapid transit program through the 1960s, but by the early 1970s the Skybus program for Allegheny County was in trouble and soon lost its critical state funding. With the program's demise the industry targeting strategy failed as well. The collapse of

the winning Renaissance formula is noteworthy and instructive. The innovative character of Westinghouse's technology opened it to criticism, and a competitive technology advanced by another local corporation divided the business community at the moment when Richard K. Mellon's death removed his unifying leadership. At the same time, the construction of a rapid transit system as the demonstration aspect of the strategy depended on local and state governments' decisions to incur public expense, subjecting the strategy to the vicissitudes of local politics. In the past the concentration of private and public power in two powerful figures, Mellon and Democratic boss David L. Lawrence respectively, their informal partnership, and the efficacy of their organizations simply bulldozed political opposition to massive renewal programs and to behind-closed-doors, top down planning. By the late 1960s, however, the loss of this leadership (Lawrence died in 1966) weakened the public/private partnership and rendered the public decision-making bodies vulnerable to new populist political sentiment, galvanized by the riots in the aftermath of Martin Luther King's assassination, which championed the interests of groups left out of the planning process and the benefits of the proposed system

This case study of industry targeting in Pittsburgh cannot shed light on the process by which civic leaders selected the rapid transit industry. Neither oral interviews, nor extant documentation present a clear picture of this decision-making process. While the literature of industry targeting focuses on approaches to industry selection, writers lament the lack of studies on implementation experiences and outcomes. The Skybus experience in Pittsburgh bears out the essentially political nature of industry targeting. The successful outcome of a targeting program may well, as this Pittsburgh example suggests, depend more on effective leadership and local politics than on the quality of the selection process and the vigorous pursuit of traditional economic development strategies in support of the targeted industry.⁵

The Context for Industry Targeting in Pittsburgh

In 1960 Pittsburgh had just experienced 15 years of redevelopment that re-established it as not only a powerful industrial city but also a dynamic city with a revitalized central business district, new pollution controls on water and air, expanded educational and research facilities, a

forward-looking business elite, a successful public-private partnership, and an increasingly positive public image within the nation.⁶

At the same time, important changes in the political economy of the nation and region were making themselves felt locally. The transformation of the national economy away from older smokestack manufacturing to service and technologically advanced industries was well underway. Pittsburgh was leading the way in deindustrialization. Production workers in manufacturing declined 31 percent from 1947 to 1967, and the region's share of the national steel output declined steadily after 1950. The population of the region was growing slowly since 1930, and net migration had been negative in every decade since the 1920s.⁷ The population of the metropolitan area actually peaked in 1960. While it was not easy in 1960 for Pittsburghers to foresee how dramatic the changes in Pittsburgh's economy would be, it was apparent that unbridled optimism was not warranted. Civic leaders had for years called for diversification of the regional economic base in order to diminish the extreme impacts of recession years and wished to find a new growth industry.⁸ Thus, any regional policy, and most especially industry targeting, would be significantly constrained by developments in both the national economy as the post-war boom was winding down and the local economy in which relative decline had already manifest itself and absolute decline was waiting impatiently in the wings.

The 1960s also brought forth many calls across America for solutions to the urban transportation problem. New expressways and steady increases in the use of automobiles coupled with decades of deteriorating public transportation led to unprecedented congestion and air pollution in the nation's cities. Expressway construction could not keep pace with America's love affair with the automobile, and vociferous protests at the destructive impact of expressways on cities threatened the completion of many planned projects. An obvious solution, it seemed, was to create modern, attractive, efficient public mass transportation that would encourage commuters to abandon their automobiles. With hindsight the merits, or perhaps more accurately the practicality, of this approach seem weak. The powerful highway lobby -- the auto manufacturers, oil companies, highway construction firms, government agencies, and sympathetic politicians -- formed an immovable force against which mass transportation interests

fought ineffectively. The consumer's attachment to the automobile also turned out to be more serious than many experts judged. Moreover, deteriorating social relations between whites and African Americans and between the wealthy and poor spurred suburban flight and the desire for privacy in residence and commuting. The unparalleled flexibility of the automobile (ignoring congestion) proved to be a virtue without peer. The rise of the automobile continued unabated.⁹ However, urban planners, many businessmen, a few politicians, and some of the citizenry thought differently, putting mass transit on many public and civic agendas. Many experts believed that the nation was on the threshold of an enormous market for mass transit design, engineering, construction, and equipment.

Pittsburgh had suffered from traffic congestion for most of the twentieth century. The rugged, hilly topography constrained travel to narrow valleys and river floodplains, forcing the construction of tunnels that proved to be bottlenecks in the flow of traffic. The confining physical geography of the "Golden Triangle", the peninsular downtown crammed between the Allegheny and Monongahela rivers where they meet to form the Ohio River, especially worsened the downtown traffic conditions. Beginning with Frederick Law Olmsted, Jr.'s, plan in 1911, Pittsburgh planners struggled throughout the years to provide an adequate highway network, while at the same time they neglected the various forms of mass transportation.¹⁰ Just as they had addressed long-standing environmental, redevelopment, and housing problems under the Renaissance banner, leaders naturally tried to solve the traffic problem of the region. In addition to building new limited access highways with tunnels, they wished to create an effective mass transportation system for Allegheny County.

The development of a public transportation system involves a complex network of intergovernmental arrangements among federal, state, and local governments. Differences in the political and bureaucratic objectives of these governmental units create problems, as does the strong tradition of local autonomy among municipalities. The pivotal governmental units for the Skybus rapid transit venture were Allegheny County, the City of Pittsburgh, and the Port Authority of Allegheny. Other governmental units, including federal, state, local, and judiciary ones, were important to the Skybus story.

Governmental fragmentation between the City of Pittsburgh and Allegheny County and among the 130 minor civil divisions of the County always presented problems for regional initiatives. Between the 1930s and the 1960s, the Democratic Party, centered in Pittsburgh, provided unity among the various elements of the City of Pittsburgh and Allegheny County governmental systems. The Democratic political machine informally coordinated and directed regional governmental policies. Although there was always some dissent, Democratic Party leaders managed conflict by brokering diverse interests of the various groups that brought rank and file Democrats into the coalition.

Political unity prevailed during the early stages of the planning a new rapid transit system. When legislation passed to create Port Authority Transit, David Lawrence, longtime Renaissance mayor and party boss, was the new governor of Pennsylvania. Close ally Joseph M. Barr was the newly-elected mayor of the City of Pittsburgh. Dr. William D. McClelland chaired the Allegheny County Board of Commissioners with John D. McGrady the other Democratic Commissioner and Blair F. Gunther the Republican minority member. McClelland had been a political opponent of the Lawrence organization since 1954. However, he eventually supported Pittsburgh's interest in a rapid transit system.¹¹ McGrady closely identified with the Lawrence-Barr organization, while even Republican Gunther supported the rapid transit strategy. Although the County Commissioners were responsible for implementing rapid transit, city government under Mayor Barr and his staff was the principal contact with the business community and a driving force in the creation of the rapid transit system.

Since World War II Pittsburgh business leaders under the auspices of Richard King Mellon strived to renew their smoky steel city. Working through the Allegheny Conference on Community Development (ACCD), Mellon and the presidents of the city's largest corporations created several non-profit organizations to carry out planning, renewal, and development. The Allegheny Conference exercised control over these diverse corporations and civic organizations through the power of the Mellon family interests in the business community and the interlocking appointments of corporate executives on boards of directors. Mellon forged an informal partnership with Mayor David Lawrence as the leader of the Democratic Party, and together they

orchestrated the public/private partnership that implemented the various projects of Renaissance.¹²

Early in his administration, Barr stated his commitment to maintaining the private/public partnership and urban redevelopment that characterized the Lawrence era. In an article in the *Pittsburgh Post-Gazette* in December 1959, Mayor Barr stated: "There will be no let up, I assure you, on the part of the government, or on the part of civic agencies, whose contributions have been so essential to the past accomplishments."¹³ The working relationship of the staffs of public and private agencies primarily maintained the public/private partnership in the Barr era. Aldo Colautti, executive secretary to Barr, can recall only two times when the mayor had personal meetings with Mellon. The Allegheny Conference remained the key private agency in maintaining this communication and setting the initiative for development.¹⁴ Ed Magee, Allegheny Conference executive director from 1959 to 1968, was a conservative man with a limited set of priorities for the development of the region. He had little or no concern about social issues. His development agenda was the continuation of the physical development started in the Lawrence era. His interest in new programs centered on building an all-sports stadium, mass transit, and, to a lesser extent, refurbishing the city's zoo.¹⁵

Magee's major contact in the city administration was John Mauro, the mayor's urban renewal coordinator and later director of the city's Department of Planning and Development. Mauro began his career as a *Pittsburgh Post-Gazette* reporter and became the director of public relations at the Chamber of Commerce. After his work for the city, he moved on to roles as director of development for the Allegheny Conference and finally the executive director of the Port Authority of Allegheny County. Mauro's and Magee's common concerns for physical development were compatible.¹⁶

The media helped to forge a broad public consensus around goals of economic revitalization of the region. The media rallied and maintained support for revitalization by dramatically making visible its accomplishments. In an interview years later, Walter Giesey reflected on the media's public relations role in the Pittsburgh Renaissance: "Again, looking back, I think that the newspapers had some responsibility in the eventual degeneration in almost

being too kind to the administration and to the Conference. If the Conference said this is good, it became automatically good. No one went out to find out whether everyone else thought it was good, that was the imprimatur and that was it, and so the *Pittsburgh Press* would say it was good and the *Pittsburgh Post-Gazette* would say it was good, and it was good."¹⁷

Much of the momentum for Renaissance resulted from "selling" an image -- an illusion of the simplicity of redevelopment as a well-planned, fastidiously run, problem-free master operation. The same image was used to sell the rapid transit program.

Skybus: PAT's Choice for Rapid Transit

On April 6, 1956 the state legislature passed the second-class Port Authority Act, which created the Port Authority of Allegheny County. The Port Authority had the power to plan, acquire, construct, maintain and operate facilities and projects for the improvement and development of the port district. Three years later the legislature passed an act enabling the Port Authority to purchase and operate mass transit facilities. The Allegheny County Commissioners appointed a Port Authority Transit [PAT] Board; and the Commissioners could approve, disapprove or direct revisions of proposals set forth by the new body. The legislature directed that "the Authority, immediately upon its organization, shall commence its study of an integrated system of mass transportation within the service area..."¹⁸ This requirement set into motion the series of events that led to PAT's adopting in 1959 the Early Action Program for rapid transit and subsequently to an innovative but controversial rubber wheel technology.

In June 1960 PAT hired the engineering firm of Coverdale & Colpitts to conduct a feasibility study for an integrated system of mass transportation. The resulting plan, accepted by PAT in 1961 and amended and adopted by the County Commissioners in 1963, recommended the consolidation of the Pittsburgh Railways Company (the trolley system), two inclines on Mt. Washington, and 30 bus companies into one operating system. The Commissioners' decision came after considerable acrimony as to whether the issue of creating a county-wide transit system should be put to a referendum and whether it was a step toward metropolitanism. Local municipal officials around the county, represented most vociferously by McKeesport Mayor

Andrew J. Jakomas and Bethel Park Mayor Peter Page, feared the loss of autonomy. With county and federal funds PAT immediately began the implementation of this plan. As acquisition of extant companies progressed, PAT was also considering futuristic designs and exclusive rights-of-way for carriers in order to provide rapid transit.¹⁹

In June 1963 PAT became a founding partner in the demonstration project for Westinghouse Electric Corporation's futuristic Transit Expressway System (called locally Skybus). Responding to the blandishments of urban experts and civic leaders, the federal government and state counterparts had begun in the early 1960s granting financial assistance for the upgrading of local mass transportation systems as well as for experimental transit programs. In one of these initiatives, the Housing and Home Finance Agency, soon to become the Department of Housing and Urban Development (HUD), put up matching funds for the construction and operation of Westinghouse's innovative Skybus system in order to test its feasibility for medium density urban areas. The high capital and operating costs of conventional rail transit presumably prohibited its use in medium density markets.

Already under consideration for Tampa's airport, Westinghouse's technology offered, it was argued, advantages of modern comfort, lower operating costs, and route flexibility for Pittsburgh's rugged topography. Civic leaders may have already had Westinghouse's design concept in mind when the City of Pittsburgh, the Golden Triangle Association, and the Pittsburgh Regional Planning Association adopted the Golden Triangle Master Plan in June 1962, which included "recommendations for an automated rapid transit system serving areas to the east and south of the Triangle."²⁰ PAT joined HUD, the State of Pennsylvania, Westinghouse, and two dozen other corporations (many from Pittsburgh) in financing the \$5,000,000 Transit Expressway Mass Transit Demonstration Project.²¹

Although HUD Secretary Robert C. Weaver did not dedicate Skybus until January 1966, Westinghouse initiated operation of its trains on a 1.77 mile demonstration loop in South Park in early August 1965. The electric, automatically controlled (i.e., unmanned) and rubber wheeled vehicles, operating individually or in trains, ran at speeds as high as 50 mph along an elevated steel frame, concrete surfaced roadway. Together the vehicles and roadway were designed to

provide the comfort and convenience necessary to attract commuters accustomed to their private automobiles. In this initial project, Skybus operated for 10 months, covering 21,000 vehicle miles and providing rides to the public during four days of the Allegheny County Fair.²²

Three months after the South Park demonstration began and only weeks after President Lyndon Johnson signed a law to stimulate rapid transit, PAT took another essential step in the development of rapid transit in Allegheny County. In late October 1965 with money provided by the state, PAT authorized Parsons, Brinckerhoff, Quade & Douglas [PBQD] to prepare a plan for rapid transit, which included an evaluation of the rubber wheel Skybus system.²³ In hiring PBQD, PAT obtained the engineering firm that had done the planning work for the Bay Area Rapid Transit system (BART) under construction in the San Francisco Bay area. BART was the nation's boldest development in rapid transit at the time. PAT charged PBQD to investigate all possible options and routes and produce estimates of feasible alternatives with the final report due in 1967. The results of this and a number of other studies undertaken in this period would strongly influence the fate of Skybus and its competitors.

PAT had been contemplating this step long before Fall 1965. In early 1964, six months after it had entered into the Skybus experiment, PAT board members informed the Executive Committee of the Allegheny Conference of their consideration of rapid transit and distributed a reprinted article about BART and PBQD.²⁴ In summer 1964, PAT decided to end commuter railroad operations, allowing the Pennsylvania Railroad's remaining trains to stop running 90 days later. Its own hasty study of the Pennsylvania Railroad's service convinced Leland Hazard, Chairman of PAT's Rapid Transit Committee, of the need for a comprehensive master plan for rapid transit in Allegheny County. As a member of PAT's board and the corporate community, Hazard was a tireless, outspoken advocate for rapid transit.²⁵

At the initiation of the PBQD study, PAT officials claimed that they had not yet determined the appropriate technology for rapid transit in Allegheny County despite participation in the Skybus demonstration at South Park. However, by fall 1965 the operation and evaluation of Skybus was already in its early stages. The existing two year relationship with Skybus, the discussion of futuristic solutions, the recommendation for automated transit in 1962 in the

Golden Triangle Master Plan, the canceling of commuter rail service in 1964, the concurrent targeting of the local rapid transit industry (discussed below), and HUD's interest in the Skybus technology surely had PAT Board members favorably disposed to Westinghouse's rubber wheel vehicles when they engaged PBQD.²⁶

Skybus picked up momentum in early 1966 when PAT asked the Transportation Research Institute (TRI) at Carnegie Mellon University to study a distribution loop within downtown, which would use a similar design concept. In December 1966 PAT further contracted with TRI to conduct studies of other technological aspects of Skybus.²⁷ Then in 1967, when PBQD was still completing its work, confirmation of the technical feasibility of Westinghouse's system came from the local MPC Corporation's positive evaluation of the South Park demonstration, favorable results of TRI's studies, and a supportive evaluation by Richardson, Gordon and Associates (consulting engineers). Early in 1967, MPC concluded that the Transit Expressway was a feasible technology for medium density markets and that the public, at least at South Park, accepted the concept of unmanned vehicles. MPC also recommended additional design and engineering refinements as well as further evaluative demonstration.²⁸ In April Allegheny County and Westinghouse each put up \$200,000 to extend the testing of Skybus at South Park with the expectation that these investments would leverage \$2,000,000 from state and federal sources for additional engineering and design work. In September PAT Board member Leland Hazard announced the recommendation of the Transit Committee for building a Skybus demonstration line to the South Hills, noting in particular the unsuitability of steel rails for Pittsburgh's terrain.²⁹ Perhaps, Hazard's release of his committee's report before the release of the nearly completed PBQD study reflected rumors that the prestigious engineering firm favored steel wheel technology.

PBQD released its long awaited report on December 18, 1967. The firm proposed rapid transit corridors to the eastern suburbs, North Hills, the Ohio Valley, and two to the South Hills, encompassing 60 miles in all and estimating costs of over \$700,000,000. PBQD did not expressly endorse one technological system, rubber tire or steel wheels. Although newspaper articles about the report emphasized the choice between the two technologies, PAT's intention to

adopt Skybus seemed reasonably clear from the preceding studies and projects.³⁰ Two days after the release of PBQD's report, Westinghouse received the first Urban Transportation Award given by HUD. *The Pittsburgh Press* noted that "This commendation is particularly encouraging because the Allegheny County Port Authority Transit (PAT) hopes to receive \$300,000 from HUD for a feasibility study of a plan to operate a Skybus between the South Hills and downtown Pittsburgh. If all goes well, the next step would be construction of a \$60,000,000 test line to be completed by 1970."³¹

PAT's formal acceptance of the PBQD report in March 1968 positioned it to apply for federal financial assistance in designing and building a rapid transit system. In August of the same year PAT's Transit Committee submitted to the PAT Board a 28 mile Early Action Program and proposed Westinghouse as the systems manager for the engineering study that would apply its Skybus design to the recommended South Hills demonstration line (this became known as TERL - Transit Expressway Revenue Line).³² With Westinghouse in place PAT applied to the Department of Transportation for a Technical Study Grant, which was approved on November 1, 1968. Conditions of the grant made it clear that Westinghouse was not to participate in the final decision on the rapid transit technology used on the TERL corridor.³³

Despite more than five years of close interaction with Westinghouse, PAT was not yet formally committed to the Skybus technology until the following summer when the technical grant was completed and PAT was ready to seek additional federal funding. On July 10, 1969 PAT ignored the last minute submission of an alternative steel wheel scheme, approved the Early Action Program to include Skybus on the South Hills line, and filed an application with the Urban Mass Transportation Administration of HUD (UMTA). In September after public hearings, the Allegheny County Commissioners approved the program and agreed to the financial commitments it engendered. On June 10, 1970 UMTA approved \$8,700,000 for the project and added an additional \$60,000,000 in September 1971.³⁴ Although Westinghouse's Skybus now seemed certain to be built in Pittsburgh and to become a model for other medium density markets to consider for adoption, a discordant note to this process had appeared in the newspapers in early 1968, and a major fracture in civic unanimity surfaced and widened during the approval

process in summer 1969. At the time, however, few of Skybus' proponents realized how serious this fracture would be.

Detroit of the Transit Industry

The strategy to make Pittsburgh the center of the rapid transit industry was closely entwined with the region's efforts to construct an innovative rapid transit system. The same coalition of public and private leaders, which had orchestrated the city's Renaissance after World War II, targeted the rapid transit industry for special attention. Corporate leaders with the essential support of R.K. Mellon worked through non-profit organizations and partnered with PAT to promote a rapid transit system and industry.

Public officials at the local, state, and federal levels, who participated actively in the development of the rapid transit system (including Skybus), shared the industry targeting goals; but they were apparently, and quite logically, less involved in the targeting strategy itself. This distinction proved in the end to be a fatal weakness in the private-public coalition for the industry targeting objective. By viewing targeting as a private sector program, some public officials who came into office late in the process felt little commitment to Skybus, especially as central to the targeting program, and were willing to accept an alternative technology for political expediency.

At the same time, the Skybus plan opened a fracture within the corporate community; and without the leadership of R. K..Mellon to hold it together, the private sector faded from the fray when conflict over Skybus erupted in the public arena. The reasons for the corporate community's failure to continue its promotion of a local rapid transit industry after 1972 are unclear, but the federal government's weak financial support of urban mass transit in the 1970s more than likely deflected the interest of corporate planners to greener pastures.³⁵

The idea that Pittsburgh might become the center of the rapid transit industry followed logically from both the region's contemporary experience and industrial history. The desire to diversify its industrial structure and extend its redevelopment progress with rapid transportation fit comfortably with corporate strengths in transportation engineering and manufacturing and with the civic leadership's self confidence in effecting change. Just as aircraft manufacturers saw

opportunities for new markets in the federal government's post-war goals to develop missile and space programs, corporations with ground transportation capabilities perceived growth potential in the government's emerging policy to encourage rapid transit in cities across the United States.

In a 1965 demonstration of rapid transit equipment for the future, U.S. Steel President Leslie Worthington cited the Census Bureau's projection that 75% of the nation's anticipated population would live in 300 metropolitan areas.³⁶ After examining 42 cities most likely to build systems, the company estimated construction costs of "more than \$8 billion dollars over the next 15 years ... These systems offer a potential market for steel of about six million tons."³⁷

Westinghouse Electric Corporation and Westinghouse Air Brake Company (WABCO) had been developing their transit capabilities for several years, undoubtedly in consultation with federal authorities. Three top Westinghouse Electric executives stood among the invited dignitaries who witnessed President Lyndon Johnson sign the 1965 rapid transit bill authorizing \$90,000,000 for research, development, and demonstration projects across the nation. One month later Westinghouse President Donald C. Burnham brought his Board of Directors to South Park to see Skybus because he felt rapid transit systems would become an important factor in the company's future.³⁸

Even though Pittsburgh's reputation rested on steel production, the area's businesses had a long involvement in various transportation industries. Boat building along the banks of the three rivers began in the early years of the nineteenth century. These boat yards initially turned out simple wooden rafts and keelboats, but graduated to more complicated steamboats that plied the inland waterways for the rest of the century.³⁹ Long after the steamboat industry disappeared, local boat yards produced river barges and military landing craft for World War II, while area steel mills forged massive armor plates for U.S. Navy warships.

In the mid-nineteenth century, the rapid expansion of railroads across the continent triggered the transformation of Pittsburgh's iron rolling mills into a mass production steel industry that dominated the nation's production for decades. In order to compete for the burgeoning railroad rail market, many local iron masters, most notably Andrew Carnegie and his associates, installed new technologies, vastly expanded the scale of production, and eventually

adopted modern management techniques. Carnegie's Edgar Thomson works, which opened in Braddock in 1875, became the prototype integrated steel rail mill for the industry.⁴⁰ At the same time, dozens of local foundries produced railroad wheels, axles, and frogs as well as mining cars that were in demand at the region's hundreds of coal mines and coke works. By the early twentieth century, Pittsburgh manufacturers had become major suppliers of railroad equipment. Besides rails and spikes, local firms produced locomotives (notably H.K. Porter), railroad cars (e.g. Pullman Standard in Butler and Pressed Steel Car in McKees Rocks), steel wheels, axles, car couplers, boilers, engines, valves, and numerous other products. There were more than a dozen major railroad repair shops. Of special note were the brake and switching industries under George Westinghouse's control. In the 1860s Westinghouse devised the railroad air brake and then followed over the next several decades with a succession of switching and signaling innovations. These developments resulted in the formation of the Westinghouse Air Brake Company as well as the Union Switch and Signal Company.⁴¹

With this background many Pittsburgh corporations and engineering firms were by the early 1960s deeply involved in designing products for the anticipated growth of the rapid transit market. They established transit research centers within their own corporate structures and joined with other corporations, often local ones, in creating new products. By 1962 WABCO brought several divisions together in its Mass Transit Center, including its Union Switch and Signal division, and was working on automated controls, braking gears, and other experimental equipment for Montreal's Expo '67, Newark's inter-terminal transit system, and San Francisco's BART. In October 1965 the Pullman Company announced the creation of its Transportation Systems Center at its Pittsburgh rolling stock division in Butler and a working relationship with the Swindell-Dressler engineering and equipment group. In cooperation with ALCOA, Edgewater Steel created an aluminum centered, steel wheel, which it tested with the Chicago Transit Authority and supplied to BART for experimental purposes. In turn, ALCOA worked with railroad car manufacturers to devise increased uses of aluminum in the transit industry, some of which the Long Island Railroad tested. U.S. Steel participated with other local companies such as PPG Industries and Midland Ross, an electronics equipment producer, in

fashioning its demonstration car called SCOT (Steel Car of Tomorrow). Westinghouse Electric had been working on propulsion designs with BART and, of course, launched its Skybus demonstration project in June 1963. Among other local companies, Rockwell Manufacturing produced transit meters and compressor units, and the Koppers Company sold railroad ties and plastics for car interiors.⁴²

Who initially recognized the advantages of a coordinated promotion of Pittsburgh's rapid transit industrial capabilities is not known. The June 1963 agreement to build the South Park Skybus loop may have been the initial step in a coordinated effort, for it brought together public entities and several private companies in addition to Westinghouse. County Commissioner Dr. William D. McClelland explicitly supported the Skybus demonstration because he believed it would lead to a new local industry and revitalize the industrial valleys. Comments by Westinghouse executive George W. Jernstedt and McClelland in 1967, four years after the agreement, suggest that Skybus was an initial step in a strategy to help Westinghouse win contracts with BART. At the January 1964 meeting of the Allegheny Conference's Executive Committee, Robert Ryan, then head of the Regional Industrial Development Corporation (RIDC), averred that in light of "the opportunities in the field of rapid transit" the implementation of the Golden Triangle Master Plan of 1962, which recommended an automated rapid transit system, held "great potentialities for the area in terms of increased employment and economic growth." Ryan, once described as "an established trouble-shooter for the Mellon interests," may have merely reflected ideas commonly under discussion at the time in business circles, but he had brought them to the attention of the one organization, the Allegheny Conference, with the inclination, corporate perspective, and power to formulate an industry targeting effort.⁴³

Whatever the inception date, the targeting strategy was publicly acknowledged and put into action by mid-1965. In the typical Renaissance manner, the Chamber of Commerce under the auspices of the Allegheny Conference and with participation of public officials launched a new organization to spearhead the effort only a month before Westinghouse began operation of its Skybus demonstration at South Park. At a June 1965 luncheon chaired by R. K. Mellon at the prestigious Duquesne Club, Chamber of Commerce President Henry Avery announced the

formation of the Urban Transportation Development Council (later simply called the Urban Transportation Council or UTC).⁴⁴ Mayor Barr, corporate presidents, and representatives of the newspapers attended the luncheon. J. Stanley Purnell, an assistant to the president of T. Mellon & Sons, chaired the new council of 16 business and civic leaders, including representatives from PAT, trade associations, and engineering, metal and material firms. He described the UTC's mission as bringing "world wide" attention to Pittsburgh "as a center of mass transit production and design", conducting events that would bring local companies into contact with potential customers and thereby creating jobs with the subsequent expansion of business. Moreover, Purnell added the objective to "push solution of Pittsburgh's own mass transit ... problems."⁴⁵ As its first effort to achieve these goals, the UTC scheduled an international conference on mass transportation for early February 1966.

By the beginning of the conference, the construction of rapid transit in Allegheny County and the development of the local industry had been publicly linked as complementary elements of the targeting strategy. Upon President Johnson's signing of the transportation bill in late September 1965, both corporate leaders and PAT officials predicted to local newspapers that it would be a stimulus to the local transit industry. Local politicians such as State Senator Robert D. Fleming as well as the daily newspapers urged the region not to fall behind other cities and to keep Renaissance moving forward.⁴⁶ PAT officials presented their hopes for rapid transit at the annual dinner meeting of the Allegheny Conference; their prominence on the meeting's agenda reflected the Conference's support for not only a rapid transit system but also the local transit industry.⁴⁷ In a January 1966 presentation to the Kiwanis Club, Gene R. Schaefer, Director of WABCO's mass transit center, linked the construction of a rapid transit system in Pittsburgh with the promotion of the local industry. Schaefer predicted that by the early 1970s Pittsburgh would be building a rapid transit system because of the capabilities of local industry. Pittsburgh would "become the most prominent city in mass transit -- not only as a supplier but also from an operating standpoint."⁴⁸

Momentum for the targeting strategy continued to mount. One week after Schaefer's speech, 200 industrial and civic leaders attended the formal dedication of Skybus at South Park.

Both PAT Chairman Judge Loran L. Lewis and County Commissioner McClelland told reporters that this experiment could result in an important new industry for the region.⁴⁹ A little more than two weeks later on the eve of the initial UTC conference, the *Pittsburgh Post Gazette* recognized the role that an operating rapid transit system could play for local industry. The editors hoped that "Pittsburgh will demonstrate through the construction of its own rapid transit system just what its industries are capable of doing. Nothing is more persuasive than a going concern."⁵⁰ RIDC's Ryan argued explicitly that developing a rapid transit system for Pittsburgh was a critical part of an industry targeting strategy. Since his organization was created in 1955 to help diversify the local economy, he may have been in the best position to be a spokesman. According to the *Pittsburgh Press'* report, Ryan warned "This city can become an urban transportation center only by demonstrating its own capabilities in the industry on its own home grounds. This will require total commitment by public officials and agencies."⁵¹ Ironically, at this early date Ryan also hit upon both weaknesses in the region's targeting strategy when he recognized the corporate competition among local firms for these markets and the need for total public commitment to rapid transit among the region's transit producers.

With the convening of the First International Conference on Urban Transportation on February 1, 1966, the city made its pitch. As conference organizer, the UTC hoped to further the cause of urban rapid transit nationwide and focus attention on Pittsburgh as a center for the research, design, and production of transit equipment and systems.⁵² More than 1,000 people from around the nation attended the three-day affair. Topics and speakers reflected the national agenda for rapid transit. The local agenda was made explicit by an exhibit of local companies' transit capabilities -- almost a trade fair as one participant observed -- and tours of Skybus at South Park and local industrial plants.⁵³ Indeed, some participants complained to the *New York Times* that they were "tricked into attending a local chamber of commerce promotion", a lament that was in part correct.⁵⁴

The announcement at the conference of the formation of the Transportation Research Institute at Carnegie Institute of Technology (soon to be renamed Carnegie Mellon University) emphasized the city's commitment to the rapid transit industry. Supported by an initial grant of

\$300,000 by R. K. Mellon through the A. W. Mellon Educational and Charitable Trust, TRI aspired to become an international center for transit research and information.⁵⁵ The conference gained the active involvement of Pennsylvania Governor William Scranton, Mayor Barr, and other local public officials. Perhaps, County Commissioner McClelland's widely reported comment that he believed county voters would support a referendum on rapid transit signified some success in achieving the conference organizers' desire to solidify the politicians' commitment to local transit policy and to targeting the local industry.⁵⁶ The indomitable Ryan captured the general satisfaction with the outcome of the conference when he reckoned it had given the city a boost towards becoming "Detroit of the transit industry", an industry expected to soon be worth billions of dollars.⁵⁷

Over the next two years, the Detroit analogy became a common refrain. While PAT moved towards the seemingly inevitable adoption of a rapid transit plan with the Skybus technology, the corporate community pursued its goal of promoting the local rapid transit industry. Three weeks after the first transportation conference in February 1966, members of both the downtown Golden Triangle Association and the Building Owners and Managers Association visited Toronto to inspect its transportation system.⁵⁸ In the spring, the state awarded WABCO a grant to study high speed railroad service between Pittsburgh and Harrisburg. In announcing the grant, Pennsylvania Secretary of Commerce John K. Tabor allowed that even if WABCO were to determine such a rail route infeasible, the study would help establish Pennsylvania's capabilities in the transportation industry. Having missed the automobile, radio, aviation, missile, electronics, and space industries, the state, he argued, could not be allowed to miss this new one.⁵⁹

As with the initial symposium, the Second International Conference on Urban Transportation acted as a lightning rod for announcements intended to publicize the city's march towards becoming the capital of the rapid transit industry. UTC Chairperson Purnell told the Allegheny Conference that the April 1967 event would focus on solutions to rush hour congestion and highlight industry's research and development role.⁶⁰ During the week preceding the conference, several announcements seemed timed to impress the conferees, the industry, and

the city with the progress achieved towards the industry targeting goal. Mellon made a second grant to the Transportation Research Institute, this one for \$700,000. WABCO revealed that it had received a \$370,000 grant from HUD to examine all types of mass transit, including Skybus.⁶¹ But most dramatically, Westinghouse announced the decision to locate its new corporate transportation center in the nearby suburb of Forest Hills because of, General Manager Jernstedt explained, the cooperation and commitment of Allegheny County and other public officials towards Skybus in South Park. That commitment, he added, helped Westinghouse win the Tampa airport transit business and a \$26,000,000 contract with BART, which would result in 100 local production jobs. As a result, the county and the corporation agreed to commit more funds towards Skybus.⁶² Then, on the first day of the conference, new Pennsylvania Governor Raymond P. Shafer called for a ten-year \$300,000,000 commitment by the state for intercity and mass transportation, and named PAT's Hazard to head a Governor's Committee on Transportation.⁶³

A *Pittsburgh Post Gazette* reporter, Thomas M. Hritz, laid out the targeting strategy in an article on The Second Conference. Hritz identified Mellon, Purnell, Hazard, John W. Dameron (Executive Director of PAT), and ALCOA Chairman Frederick J. Close as "key figures behind the conference and transportation here" and saw the conference as a means to harness the city's "vast industrial powers" towards a common end. He quoted Purnell as saying, "In order to insure success, the power structure was pulled out." Even competing companies realized they had much to lose and joined forces behind the conference.⁶⁴ As if to secure this corporate cooperation and that of public officials, the UTC filed for incorporation later in the year. While the incorporators were the familiar figures of U. S. Steel's Worthington, ALCOA'S Close, PAT's Hazard, RIDC's Ryan, and Mellon's Purnell, the directors included the presidents of many other major corporations, (most of whom were Executive Committee members of the Allegheny Conference), I. W. Abel of the United Steelworkers, the chairmen of PAT, RIDC and the Chamber of Commerce, the President of Carnegie Mellon University, and key public officials -- Governor Shafer, Mayor Barr, and County Commissioner Leonard Staisy.⁶⁵ The successful Renaissance

formula of public and private cooperation orchestrated by the Mellon interests and the Allegheny Conference was being repeated.

Events of 1968 -- as noted earlier, PAT's acceptance of the PBQD report, submission of the Early Action Program by PAT's Rapid Transit Committee, and Washington's approval of the technical grant to study TERL with Westinghouse as systems manager -- all seemed to confirm that rapid transit with the Skybus technology and industry targeting of the transportation industry were moving rapidly towards a successful conclusion. Only a few weeks after PAT applied for the technical grant in September 1968, public officials joined representatives of 15 local firms, including both Westinghouse and WABCO to inspect the different transit technologies operating in Montreal and Toronto.⁶⁶ Thus, during the waning months of 1968 the public/private partnership appeared firmly in place and rapid transit securely part of the county's future. The strategy for targeting the local rapid transit industry looked like a winner.

The Strategy Falters

Cooperation among the rapid transit players, however, was not to be long lived; in fact, it did not survive the decade. A few key public officials broke ranks from the generally broad-based political support and shattered the partnership with private organizations, objecting to the elite bias of their interests and behind-closed-doors style of decision-making. At the same time WABCO's challenge to the Early Action Program and Westinghouse's Skybus technology broke the unanimity of the corporate community. Both fractures revealed weaknesses in the long-standing Renaissance formula, which had come about due to changes in leadership and political context. When the omnipotent old leaders of the public/private partnership died -- both Mellon and Lawrence -- stresses in the coalition could not be contained. Moreover, the public's growing distrust of elite forms of power in the late 1960s, violence following Martin Luther King's assassination, and intensification of civil rights and neighborhood activism provided the opportunity for new political leaders to discredit and attack the Renaissance partnership.

In 1967, the Democratic Lawrence-Barr era was coming to an end, and the consensus among business and political leaders began to unravel. Lawrence died in 1966. A few public

leaders with different agendas began to seek power. Although in 1967 the Democratic organization managed to elect two new County Commissioners faithful to the rapid transit program (Leonard Staisey of the Monongahela Valley and former State Representative Tom Foerster), a less friendly Republican William L. Hunt defeated Blair Gunther for the minority commissioner position. Hunt was an aggressive partisan from the Monongahela Valley who united with elected officials from the Valley's industrial towns, especially Republican Mayor Zoran Popovich of McKeesport, to oppose the Early Action Program on the grounds that the Valley had been left without planned routes. The McKeesport mayor's opposition to Skybus, and that of several other municipalities, reflected the acrimonious debate over creating a county-wide mass transit system in 1963. McKeesport's mayor at the time, Andrew J. Jakomas, had feared that consolidating local transit (mostly bus) companies was a step toward the creation of a metropolitan-wide government at the expense of municipal autonomy. Suburban communities throughout Allegheny County had feared metropolitanism since the beginning of the century, and the reappearance of this opposition should have been anticipated.

In 1967 the Barr administration's attention was being diverted from physical redevelopment. Many factors caused this reorientation, including the demands of the civil rights and welfare rights movements, anti-Vietnam War protests, the increasing number of categorical grants available to cities from the federal government for the development of new organizations to manage federal money, and the community's growing hostility to past renewal efforts.⁶⁷ By 1969 the Barr administration had experienced explosive riots, a revenue crisis, and strikes. The riots immediately following the assassination of Martin Luther King, Jr., on April 4th, 1968 shocked the city and Barr. He decided not to run for re-election. At 63 years of age he had spent 30 years in public life and was prepared to step aside. In a public statement he said: "To be mayor of a major city means to be involved in the period of the greatest social challenge and change in our nation's history. Never before has there been greater ferment and social conflict in our urban centers."⁶⁸

In the spring 1969 Democratic primary, Pittsburgh City Councilman Peter Flaherty defeated the organization's candidate, Judge Harry Kramer, to be the Democratic

candidate for mayor. Flaherty attacked the Lawrence/Barr organization and the public/private partnership symbolized by the Allegheny Conference on Community Development, which he described as "a top down elitist operation" that was inefficient, lacked fiscal soundness, and neglected Pittsburgh neighborhoods, especially African American areas. He ran as "nobody's boy" without ties to the Democratic organization, labor, or the business community. Once mayor, Flaherty replaced the directors of all departments, including the Planning Department and the Urban Redevelopment Authority, rupturing the important staff relationships that had implemented the public/private partnerships of Renaissance.⁶⁹

While the political leadership was being transformed, the Allegheny Conference on Community Development also experienced change. In the closing years of the decade Richard K. Mellon adopted a passive role in civic affairs and then died in June 1970. After the civil rights riots and demands that followed the assassination of Martin Luther King in April 1968, new executive director of the Allegheny Conference, Robert Pease, presided over a change in the organization's focus to "human renewal" emphasizing social and economic development, education, and employment training. The Conference's annual report in 1968 expressed the concern for social issues:

"An urban crisis, more challenging and even more difficult of solution than the physical crisis of the 1940s, confronted Pittsburgh -- the problems of the urban poor, the black and white citizens in the deprived neighborhoods of our community where poverty, unemployment, crime, delinquency, poor housing, alienation and other corrosive forces of ghetto existence sap the vitality and strength of our urban life ..., ⁷⁰

The Conference resolved to help bring the urban poor into the main current of community life so that the city could realize its full potentialities. This new focus on human renewal diverted energies from physical redevelopment and rapid transit, although it did not end the Conference's commitment to them.

In this changing political environment, WABCO disrupted the unity of the business community and smooth progress toward PAT's and the UTC's goals with the submission in July 1969 of an alternative rapid transit plan. There had been little public warning of this rupture

earlier in the spring, when the Renaissance partnership seemed to be functioning routinely. In March at the Fourth International Conference on Urban Transportation, Allegheny County Commissioner Staisey announced that Skybus would be constructed. His announcement drew public support from the heads of PAT, RIDC, and the Chamber of Commerce, all who believed that the UTC's original goals were now within sight. In early April, Westinghouse Chairman of the Board Donald Burnham assured stockholders at the corporation's annual meeting that they were ready to build Skybus since no technical problems remained. These claims by Staisey and Burnham seemed to dispel nagging concerns about the steel rails versus rubber wheels technological issue left unresolved in the PBQD report and simmering during 1968. Two other concerns, recognized in a January 1968 *Post Gazette* editorial, high construction costs and the long time-frame for completion of the new system, still loomed in the background.⁷¹

At an evening, closed-door executive session of the PAT Board on July 8, 1969, WABCO officials presented their PAT-METRO rail transit plan for Allegheny County as an alternative to the Early Action Program, which PAT was set to adopt formally in order to proceed with a grant proposal for financial assistance from the Department of Transportation. The Board had expected to hear limited revisions to the proposed South Hills Skybus line. Instead, it faced a proposal for a complete system that differed from the Early Action Program in many significant respects. WABCO proposed a 28 mile, steel wheel on steel rail line from East Liberty in the city's East End through downtown to the South Hills. Company officials emphasized that the plan could be implemented without disrupting current trolley service, depended on proven technology, employed modern Metro cars that could be either automatically or manually operated, and used extant rights-of-way with no grade level crossings. Most importantly, the WABCO system would cost only \$114,000,000, half of the Skybus-busway program.⁷² Despite a telegram from Democratic mayoral candidate Pete Flaherty urging no action until the WABCO plan could be studied, the Board approved the Early Action Program, which included Skybus, on a 7-2 vote only two days later at its regularly scheduled meeting, filed the grant application with HUD, and asked for Allegheny County's commitment to a requisite \$4,000,000 supplement to the \$8,700,000 HUD proposal.⁷³

Allegheny County Commissioner Thomas Foerster, a Skybus proponent, scheduled a public hearing on PAT's request for the county's financial commitment because such a commitment was, in effect, public policy. The hearing provided the opportunity for those opposed to Skybus to air their case against the Early Action Program. WABCO did not wait for the hearings scheduled one month later in August and instead released its plan to the press the day after its presentation to the PAT executive committee. The controversy had now migrated to the public arena. WABCO's indiscretion angered PAT Board chairperson William Henry, Senior Vice President of Gulf Oil Corporation, and he declared that the \$114,000,000 figure was grossly underestimated.⁷⁴ On behalf of PAT, he engaged local engineering firm Michael Baker, Jr. Incorporated to evaluate the WABCO plan before the hearings, especially the cost projections. Michael Baker adjusted the figure upwards by \$104,000,000, making Skybus' estimated cost competitive. The consultant submitted its report immediately before the hearings, leaving WABCO little opportunity to examine the methodology and respond effectively.⁷⁵

For Pittsburgh and Allegheny County a lot seemed to be riding on the outcome of the commissioners' hearing when it began on August 20, 1969. The Department of Transportation in Washington expressed concern over the rift in the community, threatening the millions of dollars it was predisposed to award for local rapid transit and, hence, jeopardizing the very existence of rapid transit in the region. The technologies of the region's two major rapid transit manufacturers, WABCO and Westinghouse, were pitted against each other in this public forum. More than the transit futures of these two key corporations were at risk; the community's industry targeting strategy had also arrived at a perilous juncture. According to the *Pittsburgh Press*, one transportation official ironically noted, "The industry wants to see if the community that bills itself as the transit capital of the world can solve its own mass transit problems."⁷⁶

Led by mayoral candidate Flaherty and Republican County Commissioner Hunt, the opposition raised technological, financial, and social concerns and attacked the elite nature of the PAT Board. Recognizing the new 'power-to-the-people' temper of the late 1960s and riding the populist wave that was propelling his mayoral campaign, Pete Flaherty charged the PAT Board as being representative of the business community, because two-thirds of its members were

corporate executives. In his view, the Board was a creature of the Renaissance public/private partnership with a propensity to exclude the public from its secretive decisions, which reflected business interests and perspectives. Since tax revenues would build rapid transit, the public had the right to full disclosure and participation in the process through its elected representatives. However, as an authority, not an elected body, PAT, Flaherty charged, operated paternalistically and without accountability. He argued that such a position could no longer be tolerated.

"In short, the whole issue of rapid transit up until now has been ... a private affair of the PAT Board. My own experience at the PAT Board meetings ... was not one of welcome receptivity. The tone of the Board toward public suggestions was to look upon such suggestions as minor intrusions. In my own case it was as though I were interrupting the usual order of business ... Their tone is not one of 'the public be damned' but rather --- 'We know best'"⁷⁷

Although in a manner more appropriate to its status as a full member of the corporate community, WABCO echoed Flaherty's position by complaining that PAT had not allowed time for a proper response and tried to muzzle its Metro plan. Flaherty concluded that "an emotional commitment by the majority of the PAT Board and the Pittsburgh industrial establishment to the Skybus plan" precluded change in the plan filed in Washington.⁷⁸ Flaherty's opposition to the technology was a direct attack on the feasibility of the Westinghouse rapid transit system. Despite the various engineering studies that certified Skybus, Flaherty continued to raise doubts about the safety and reliability of the automated, unmanned trains. More than 20 years later, (then county commissioner) Flaherty offered the following scenarios to illustrate his fears:

Picture, if you will, a young, female office worker in downtown Pittsburgh who finishes her workday and afterwards goes shopping or to a restaurant, and about 9:00 p.m. goes to the Skybus Station for her trip home to Mt. Lebanon. A Skybus car pulls into the station, automatically operated by a computer. Doors open automatically after the car stops and a voice from a cassette says "Please enter." The young woman sees only two men on the car. If she gets on, she will be alone with two strangers through the tunnel and up into the first stop in Beechview. An older couple in their seventies get on at South Hills Junction to go downtown. On the way, an electrical storm or electrical malfunction causes a power failure. The car stops on the concrete piers 40 feet or so above ground level. How do they get out? It's somewhat like being on an

elevator between floors without power. Vandals throw old tires and junk on the track. The train, which has no operator, plows into the debris and is jammed to a stop. Passengers on board are placed in an unsafe situation. Ice and snow storms have similar hazards if heavy enough. There are no snow plows up there (on the elevated routeway).⁷⁹

Flaherty argued further that the proposed routes did not serve enough of the poor and working people of the county and city. Neither the Monongahela Valley, nor most of the city's neighborhoods, had access to the South Hills route. Some studies agreed that the most densely populated corridor was to the east, running through the city to the near suburbs. If Skybus or any fixed route system were to be built, the eastern route was the logical choice. However, this route went through at least one and most likely two of the largest African-American neighborhoods in the region. In contrast, the proposed route to the South Hills connected white middle class suburbs to the city's downtown. In the rising spirit of populism and civil rights militancy of the late 1960s, it was difficult to defend this apparently biased choice of route.⁸⁰

Flaherty's prediction that PAT's and the Allegheny Conference's commitment to Skybus was too strong to change proved to be correct. The county commissioners split along party lines to approve the Early Action Program at their September 23rd meeting. The majority reasoned that an innovative rapid transit system would likely attract federal aid, which was at a "premium," and would "lay the groundwork for Allegheny County to become the rapid transit center of the world."⁸¹

The targeting vision was still in tact, but relationships among the strategy's partners had changed. The hearings might have been seen as only an irritant to the plans of PAT and the UTC because funding, design work, and even some construction on the Early Action Program proceeded for the next two years. Nevertheless, the opposition had found its voice in the summer of 1969 and drove the publicity and controversy-shy business community into the shadows at a time when its former leader, R. K. Mellon, was no longer able to enforce corporate unity. The presentation and acrimonious public discussion of WABCO's Metro plan disrupted, and in the end doomed, the industry targeting strategy. Further, the election of Democrat Flaherty as mayor ruptured the essential partnership between public officials and private leaders.

In the wake of the hearings, civic leaders moved to shore up support for the Early Action Program, although discordant notes reappeared at awkward moments. While Barr remained mayor for a few more months and a supporter of PAT's plans, the Chairman of the City Planning Commission, David Olbum, addressed one of the criticisms of PAT in a letter to the county commissioners, writing that "there has been better coordination among the various agencies on this project than on any other development within the memory of the Planning Commission" and urging "prompt approval on the Early Action Program."⁸² In late October long time proponent of Skybus and close Mellon associate Robert Ryan was named chairman of the UTC, replacing former U. S. Steel President Leslie Worthington who had originally taken the post at Mellon's urging. The contract of UTC's executive director, former U. S. Steel executive Robert Hardin, was not renewed. These steps signaled the UTC's active advocacy of Skybus, which it endorsed "minutes after Ryan's election." Worthington and Hardin had not publicly endorsed either of the competing technologies. U. S. Steel was believed to be sympathetic to WABCO's steel wheel technology, while ALCOA supported Westinghouse's Skybus. The changes offered further evidence of disharmony within the business community over the issue.⁸³

At PAT's request, consulting engineers Richardson, Gordon and Associates issued a report in January 1970, stating its judgment that Skybus was "not only entirely feasible but very practical." Then, in early February the Executive Committee of the Allegheny Conference voted to endorse the Early Action Program after listening to reports on it as well as Commissioner Hunt's opposition.⁸⁴ The following week, however, concern over Skybus as a federally financed project was expressed in the U.S. Senate, and a delegation from McKeesport presented its opposition to the Department of Transportation's (DOT) legal department. The Transport Workers Union also expressed disapproval.⁸⁵ While these remonstrations delayed approval of PAT's application for funds, DOT did finally grant the \$8,700,000 in June 1970. DOT also requested its Bureau of Public Roads and NASA Electronics Research Center to evaluate the technical issues of the proposed system. Although Kaiser Engineers on behalf of Los Angeles and the city of Baltimore rejected the Skybus technology, DOT's reviews "concluded that there was no engineering basis to raise significant questions." In August 1971, DOT awarded an

additional \$60,000,000 to PAT.⁸⁶ By the end of 1971, the Pittsburgh City Council and other appropriate municipalities expressed their support, and both the county and state pledged commitment of capital expenditures for which they were responsible. Moreover, PAT had undertaken eminent domain proceedings, land purchase agreements, and some initial construction contracts.⁸⁷

Just as Skybus, and possibly Pittsburgh's industry targeting project, was poised to become a reality, the opposition filed a preliminary injunction on January 19, 1972 to stop construction. Mayor Flaherty used legal delaying tactics, such as not issuing construction permits to renovate the tunnel through Mt. Washington, blocking the sale of city land to PAT for its Midtown Plaza station, and vetoing the plan in City Council (which it reversed). Finally, Flaherty and Mayor Peter Page of suburban Bethel Park marshaled mayors of several municipalities to join with him and Commissioner Hunt in filing suit against PAT's Early Action Program.

After six months of hearings and legal procedures, Judge Anne X. Alpern issued the injunction. The opposition had taken a costly step, for as Secretary of Transportation John Volpe informed Mayor Flaherty the federal funds had been granted only for the Early Action Program. New applications would have to be filed for a different proposal. When new Pennsylvania Governor Shapp, a Democrat, withdrew his support in the Fall of 1972, and hence state funding, the strategy of building a local rapid transit industry on the back of a local rapid transit system that employed the Skybus technology foundered.⁸⁸ The injunction underscored the collapse of the public/private partnership. In suing PAT, public officials also indirectly attacked the Allegheny Conference, which was committed to PAT's Early Action Plan and the creation of a local rapid transit industry.

Although Judge Alpern's decision was reversed on appeal in early 1973 by the State Supreme Court, the Skybus program was hopelessly deadlocked. Federal support remained for Skybus, but there was so much local controversy that a new study was proposed to evaluate the alternatives. The county commissioners formed a Transit Task Force in 1972. Winning both the Democratic and Republican primaries, Flaherty easily won re-election in November 1973. The Allegheny Conference under the new presidency of Robert Dickey III, chairman of Dravo

Corporation, recognized that a working relationship with the mayor was essential for the continued redevelopment of the region, and therefore, it might have to diminish its support for Skybus.⁸⁹

Task Force members came from all levels of government and the Port Authority. PAT Board member John P. Robin chaired the task force. Robin, the first executive of the Urban Redevelopment Authority of Pittsburgh and a central figure in Pittsburgh's Renaissance, had not been involved in the development of the rapid transit strategy or the controversy. Widely respected by all parties, he was the ideal person to seek a compromise for transit. Under the specter of losing federal funds, the Task Force selected a consultant through a method that dispelled concerns of a biased process. In 1976, the consultant's report recommended abandoning Skybus and opted for less controversial exclusive bus lanes, the upgrading of the trolleys to a light rail system to the South Hills, and construction of a downtown subway loop. Construction of the light rail system began five years later.

Conclusion

The Skybus struggle generated so much animosity within Pittsburgh business and political communities that the industry targeting strategy became unattainable and was abandoned. In the end, the “new center” for the design, promotion, and production of rapid transit systems could not produce its own local system.

Although in the beginning optimism prevailed, Pittsburgh's industry targeting effort failed because political support waned for the centerpiece of the strategy, the building of an innovative rapid transit system for the region. Political opponents of the city's traditional civic leadership found in the Skybus program several opportunities to press an attack. The feasibility of Skybus technology in terms of local topography, weather, and most especially safety remained in question despite the numerous studies supporting the system. A decision to run the demonstration line on an active route rather than under controlled conditions at South Park might have proven its viability, won over the public, and quieted critics who used the technical doubts to arouse public fears.⁹⁰ Suburban communities also saw in a county-wide mass transportation

system the threat of metropolitanism, by which they could eventually lose their autonomy to the city's politicians. This longstanding concern had been aroused during the 1963 controversy over the decision by the county commissioners to consolidate transit into a single system, and had not had time to dissipate.⁹¹ Moreover, industrial towns of the Monongahela Valley and the African-American community of the city's East End, which were not served by the Early Action Program's route to the more affluent and white South Hills suburbs, felt neglected once again by the region's power brokers and gave their support to Skybus' opponents. Even the United Steelworkers union registered displeasure with a technology that did not use steel rails.

In the 20 years after World War II, political opposition to Renaissance projects could not overcome the power of David Lawrence's Democratic Party organization working in an alliance with Richard K. Mellon and the corporate community and supported by a cheerleading media. However, the civil rights movement, rising populism, and increasing community activism in the 1960s undermined the party organization and encouraged challenges to the elite-based, top-down decision-making structure that characterized post-war redevelopment in Pittsburgh. The death of David Lawrence further weakened the party, while civic leaders were slow to appreciate the changing political landscape. Confident in their power to push through their transit program, as they had with other Renaissance programs for 20 years, public leaders failed to build a broad-based consensus behind Skybus. PAT, for example, never studied the likely positive impact of building and operating a rapid transit system on employment and income in the region. Nor did PAT adequately justify its selection of the South Hills route over the more obvious eastern corridor. Comprehending this new political environment, non-organizational Democratic candidate for mayor, Pete Flaherty, and Republican County Commissioner William Hunt used the Skybus program as an example of back-room, secretive decision-making to attack successfully their opponents in the 1969 election year.

In attacking Skybus, they also were attacking the Allegheny Conference and the corporate community at a time when it was most vulnerable. Late in the approval process key companies decided to no longer subordinate their self interest for the larger regional industry targeting strategy. Westinghouse and WABCO's fight over rubber wheel or steel wheel technology

brought a private fight into the public fray, while a few other companies, in particular U.S. Steel, also failed to unite behind the strategy. Previously, Richard K. Mellon had enforced corporate unity for Renaissance goals, but by the late 1960s the ailing business leader had withdrawn from civic battles. Further, the private partners of the Renaissance alliance, used to getting their way, misjudged the power of the emerging opposition. They failed to heed the warning signs of municipal dissent and corporate disagreement and to take the steps necessary to neutralize the opposition. When Flaherty won the mayoral election, he ended the partnership between the mayor's office and the Allegheny Conference. The region could no longer present an united front when applying for funds at the state and federal levels.

Pittsburgh's efforts to target the rapid transit industry in the 1960s underscore the inherently political nature of industry targeting as a regional economic development strategy. Whatever the methodological problems in selecting the targeted industry, implementation of a development program for that industry usually involves supportive public policies. Pittsburgh's strategy of showcasing the local rapid transit industry by holding promotional conferences and, most critically, building its own rapid transit system linked industrial development to local infrastructure needs, and therefore, to a local political decision-making process. Policies that favor some companies over others within the local industry, such as occurred in Pittsburgh, may open rifts that weaken private sector support. Changes in local civic leadership, as well as in the local political landscape like those that occurred in the city in the late 1960s, may undermine the ability of public officials to deliver necessary public policies. Thus, the public part of the targeting strategy may fall victim to political fights that may not be essentially concerned with the merits of industry targeting. Division within the private sector and conflicts among local politicians, in turn, prevent a region from presenting an unified civic front that is often requisite in obtaining state and federal financial commitments.

The Skybus technology never really disappeared from the transportation market place. It is used in a few communities, such as Morgantown, West Virginia, and many airports. But, its demise as a rapid transit system in Pittsburgh also spelled the demise of the regional effort to target the local rapid transit industry for development. Ironically, 20 years later the Pittsburgh

region once again targeted a local transit industry based on a new technology, magnetic levitation, tied to the construction of public infrastructure, and dependent on obtaining federal funds. This effort, known as MAGLEV, quietly dissolved in the face of numerous policy hurdles laden with political challenges.

ENDNOTES

¹ Michael P. Weber, *Don't Call Me Boss: David L. Lawrence. Pittsburgh's Renaissance Mayor* (Pittsburgh: University of Pittsburgh Press, 1988), p. 263, and Shelly Stewman and Joel A. Tarr, "Four Decades of Public-Private Partnerships in Pittsburgh," in R. Scott Foster and Renee A. Berger, eds., *Public-Private Partnerships in American Cities* (Lexington, MA, D.C. Heath and Co., 1982), pp. 59-127.

² Kenneth Voytek and Larry Ledebur, "Is Industry Targeting a Viable Economic Development Strategy?" in Richard D. Bingham and Robert Mier, eds., *Dilemmas of Urban Economic Development: Issues in Theory and Practice*, Urban Affairs Annual Reviews, 47 (Thousand Oaks, CA: Sage Publications, 1997), pp. 171-194.

³ Edgar M. Hoover, *Economic Study of the Pittsburgh Region. Volume I. Region in Transition* (Pittsburgh: University of Pittsburgh Press, 1963).

⁴ Mass transit is defined to be the transportation of large volumes of people, while rapid transit is a subset of mass transit in that it moves large volumes of people along separate rights-of-way from the general traffic and usually at faster speeds.

⁵ Donald T. Iannone, "Commentary on Industry Targeting," in Bingham and Mier, *Dilemmas of Urban Economic Development*, pp. 195-197; and Sabina E. Deitrick, "Commentary on Industry Targeting," in Bingham and Mier, *Dilemmas of Urban Economic Development*, pp. 197-201.

⁶Weber, *Lawrence*, pp. 228-276; Stewman and Tarr, "Four Decades", and Roy Lubove, *Twentieth Century Pittsburgh* (New York: John Wiley and Sons, Inc., 1969), Chapter 6.

⁷ Frank Giarratani and David B. Houston, "Economic Change in the Pittsburgh Region", in J. J. Hesse (ed.), *Regional Structural Change and Industrial Policy An International Perspective* (Baden-Baden: Nomos-Verlag, 1988), pp. 59 and 70.

⁸ Hoover, *Economic Study of the Pittsburgh Region*

⁹ Mark H. Rose, *Interstate: Expressway Highway Politics, 1939-1984* (Knoxville: University of Tennessee Press, 1990, rev.ed.); Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (New York: Oxford University Press, 1985), Chapter 14.

¹⁰ John F. Bauman and Edward K. Muller, *Before Renaissance: Planning in Pittsburgh, 1889-1943* (Pittsburgh: University of Pittsburgh Press, 1996); Lubove, *Twentieth Century Pittsburgh*; and Joel A. Tarr, *Transportation Innovation and Changing Spatial Patterns in Pittsburgh. 1850-1934* (Chicago: Public Works Historical Society, 1978).

¹¹ Weber, *Lawrence*, pp. 288-89.

¹² David L. Lawrence. "Rebirth" in Stephen Lorant, *Pittsburgh: The Story of an American City* (New York: Doubleday Press, 1961), p. 383; Roger Ahlbrandt and Morton Coleman, *The Limits of a Corporate Civic Responsibility* (Pittsburgh: University Center for Social and Urban Research, University of Pittsburgh, 1987); Sherie R. Mershon, "Corporate Social Responsibility and Urban Revitalization: The Allegheny Conference On Community Development," (unpublished Ph.D. dissertation, Carnegie Mellon University, 2000).

¹³ *Pittsburgh Post Gazette*, December 1959.

¹⁴ Morton Coleman. "Interest Intermediation and Local Urban Development" (unpublished Ph.D. Dissertation, University of Pittsburgh, 1983), pp. 85-103.

¹⁵ *Ibid.*, p. 88

¹⁶ Stewman and Tarr. "Four Decades," p. 92.

¹⁷ Interview with Walter Geisey in *The Pittsburgh Renaissance Project: The Staunton Balfour Oral History Collection. Final Report* (Pittsburgh: Buhl Foundation, 1974), p. 44.

¹⁸ Quoted in *Flaherty v. Port Authority of Allegheny County*, PA 299 a.sd, p. 613; Mershon, "Corporate Social Responsibility," pp. 591-593.

¹⁹ Brief for Defendant, Port Authority of Allegheny County, Supreme Court of Pennsylvania, Western District, No. 41 March Term, 1973, pp. 4-5. Mass transportation refers to a system of public transportation which involves the daily mass movement of people about an urban area, while rapid transit is a specific aspect of mass transportation which involves "the mass movement of people in wheeled vehicles on exclusive right(s)-of-way" in order to free the vehicles of surface street congestion. Report Testing and Evaluation of the Transit Expressway, MPC Corporation, Pittsburgh, 1967, pg. 3; "Mass Transit Up to County As Authority Unveils Blueprint", *Pittsburgh Post Gazette*, March 13, 1963. See issue of *Pittsburgh Press*, March 15, 1963, for an example of the controversy over the referendum. Also, "Mass Transit Backers, Foes in Bitter Clash"; *Pittsburgh Press*, April 19, 1963; "Judge Blasts Jakomas Stand on Transit Plan", *Pittsburgh Press*, April 18, 1963; "Transit Plan Speeded After Okay by County", *Pittsburgh Post Gazette*, April 24, 1963. Mershon, "Corporate Social Responsibility," pp. 568-591.

²⁰ Minutes, Meetings of the Executive Committee, Allegheny Conference on Community Development, February 17, 1964 (Pittsburgh). The Pittsburgh Regional Planning Association was closely linked to the Allegheny Conference throughout the Renaissance years. Former

Westinghouse executive George W. Jernstedt recalls that his company came up with the automated design in response to a 1963 request by Allegheny County through the Conference for solutions of the transportation problem (a request open to all local corporations). However, the 1963 partnership between PAT and Westinghouse for a demonstration project and the earlier Golden Triangle Master Plan suggest that the idea had been under consideration for some time. Interview with George A. Jernstedt, April 18, 1994.

²¹ Report on Testing, MPC Corporation, pp. 3-4.

²² Ibid., pp. 1-10 and cover letter.

²³ *PAT News*, Vol. 11, No. I (February, 1966).

²⁴ Minutes, Meetings of the Executive Committee, Allegheny Conference on Community Development, February 17, 1964, and May 10, 1964 (Pittsburgh).

²⁵ "Pittsburgh: Rail Rapid Transit in the Cards?", *Railway Age Weekly* November 1, 1965; and Leland Hazard, *Attorney for the Situation* (Pittsburgh: Carnegie Mellon University, 1975). Leland Hazard made a speech in April 1963, in which he argued for both metropolitanism and mass transportation as solutions to Pittsburgh's problems. He was appointed to PAT's Board in June 1963, the same month PAT entered into the Skybus partnership. Former Vice President of PPG Industries and member of the Conference, Hazard enjoyed access to the corporate leadership.

²⁶ Op.cit., *Railway Age Weekly*, (November 1, 1965). Hazard claimed he was selected by PAT Board Chairman Loren Lewis because of his penchant for innovative solutions. Further, he said that as Chair of PAT's Transit Committee, he was convinced of Skybus' possibility and pushed for its construction. "Hazard Gets County Port Authority Job", *Pittsburgh Post Gazette*, June 26, 1963; "Will Pittsburgh Live or Die? Hazard Offers Answer," *Pittsburgh Press*, April 21, 1963; and Interview with Leland Hazard by Joel A. Tarr and James Romuoldi, Pittsburgh, 1979.

²⁷ "Much Deeper Study of Rapid Transit Authorized by PAT," *Pittsburgh Post Gazette*, December 17, 1966; and "Transit Loop Downtown Envisioned," *Pittsburgh Press*, February 2, 1967.

²⁸ Report on Testing, MPC Corporation, pp. 1-10 and cover letter. The MPC Corporation was a non-profit organization owned by the Mellon Institute, University of Pittsburgh, and Carnegie Institute of Technology (later renamed Carnegie Mellon University).

²⁹26. News Release, PAT, September 18, 1967; and "City Wins Shot At Transit Title," *Pittsburgh Press*, April 13, 1967. While claiming impartiality as early as December 1966, Hazard seemed infatuated by the innovative aspect of Skybus and its potential for solving engineering problems presented by Pittsburgh's topography. op.cit., *Pittsburgh Post Gazette*, December 17, 1966.

³⁰ *Allegheny County Rapid Transit Study*, Parsons, Brinckerhoff, Quade & Douglas, December 1967; "County Given `Choice' of Rapid Transit Rides", *Pittsburgh Press*, December 29, 1967; and "Transit Pros and Cons: Steel vs. Rubber; Time

Will Tell Which One PAT Picks", *Pittsburgh Press*, December 31, 1967.

³¹ "Skybus: New Hope for Cities," *Pittsburgh Press*, December 20, 1967.

³² Flaherty v. Port Authority of Allegheny County, p. 616.

³³ Exhibits and Testimony Pages cited in Brief for Defendant Port Authority of Allegheny County, Supreme Court of Pennsylvania, Western District, No. 41, March Term, 1973, p. 634a.

³⁴ Brief for Defendant, Port Authority of Allegheny County, pp. 8-9; and Exhibits and Testimony Pages, p. 406a.

³⁵ Roger Biles, *The Fate of Cities: Urban America and the Federal Government, 1945-2000* (Lawrence, KA: University Press of Kansas, 2011), pp. 194-197.

³⁶ "U.S. Steel Cites Needs in Future of Transit", *Pittsburgh Post Gazette*, August 11, 1965.

³⁷ *Op.cit.*, *Railway Age Weekly*, November 1, 1965.

³⁸ "LBJ Oks \$90 Million For High Speed Transit," *Pittsburgh Post Gazette*, September 30, 1965; "Transit Bill Seen Benefit For County," *Pittsburgh Post Gazette*, October 1, 1965; and "Westinghouse Directors to Meet in South Park," *Pittsburgh Post Gazette*, October 27, 1965.

³⁹ Leland Baldwin, *Pittsburgh: The Story of a City*, (Pittsburgh: University of Pittsburgh Press, 1937), pp. 129-144.

⁴⁰ Joseph Frazier Wall, *Andrew Carnegie* (New York, 1970); and David Nasaw, *Andrew Carnegie* (New York: The Penguin Press, 2006).

⁴¹ David A. Hounshell, Mark D. Samber, and Joel A. Tarr, "Technology and Transformation: The Railroad as a Shaper of Regional Space, Natural Resources, Industrial Practice, and Economic Development in Pittsburgh, 1830s- 1920s," unpublished paper presented at the Symposium entitled "Localized Production Systems and the Formation of Metropolitan Areas: The Pittsburgh Metropolitan Industrial District 1870-1930", the Pittsburgh Center for Social History, Pittsburgh, November 1994.

⁴²38. *Op.cit.*, *Railway Age Weekly*, November 1, 1965.

⁴³ "South Park `Skybus' Could Revitalize Area", *Pittsburgh Post Gazette*, June 10, 1963; *op.cit.*, *Pittsburgh Press*, April 13, 1967; "Westinghouse Making Area Transit Hub," *Pittsburgh Post Gazette*, April 14, 1967; Interview with Robert Hardin, October 7, 1991 (Pittsburgh); Minutes, Meetings of the Executive Committee, Allegheny Conference on Community Development, January 20, 1964 (Pittsburgh), p. 2. The description of Ryan was made by reporter Thomas M. Hritz, "Ryan Heads PUTC: Skybus Endorsed," *Pittsburgh Post Gazette*, October 21, 1969. RIDC was another non-profit organization that grew out of Renaissance and the efforts of the Allegheny Conference. See Stewman and Tarr, "Four Decades."

⁴⁴ Interview with Robert Hardin.

⁴⁵ "Transit Industry Plug Due Here," *Pittsburgh Pres*, June 18, 1965. Purnell was also secretary of the Allegheny Conference at the time.

⁴⁶ *Pittsburgh Press*, October 20, 1965; and "Rapid Transit Progress," *Pittsburgh Post*, November 16, 1965; and *op.cit.*, *Pittsburgh Post Gazette*, October 1, 1965.

⁴⁷ "Super Agency for Transit Urged Here," *Pittsburgh Press*, November 16, 1965. The Allegheny Conference's Executive Committee had been briefed earlier in the fall on the UTC's upcoming initial conference.

⁴⁸ "Rapid Transit Setup Predicted For City," *Pittsburgh Press*, January 6, 1966.

⁴⁹ "New Industry Hailed," *Pittsburgh Post Gazette*, January 13, 1966.

⁵⁰ "World Transit Capital," *Pittsburgh Post Gazette*, January 31, 1966.

⁵¹ "Build Transit 'Showpiece', City Told," *Pittsburgh Press*, February 6, 1966.

⁵² *Op.cit.*, *Pittsburgh Post Gazette*, January 31, 1966.

⁵³ "Transit Experts Heading for City," *Pittsburgh Press*, January 30, 1966; and "Transit Experts to Meet," *Pittsburgh Post Gazette*, January 31, 1966. The description of a trade fair was made by Robert Hardin, Interview with Robert Hardin.

⁵⁴ "Technology and U.S. Aid Raise Mass Transit Industry's Hopes," *New York Times*, February 4, 1966.

⁵⁵ "City Seeking Role of Transit Leader," *Pittsburgh Post Gazette*, February 4, 1966.

⁵⁶ "County Vote Called For On System," *Pittsburgh Post Gazette*, February 2, 1966.

⁵⁷ *Op.cit.*, *Pittsburgh Press*, February 6, 1966.

⁵⁸ *Pittsburgh Post Gazette*, February 21, 1966.

⁵⁹ "State OKs Survey of Speed Road," *Pittsburgh Post Gazette*, April 22, 1966.

⁶⁰56. Minutes, Meetings of the Executive Committee, Allegheny Conference on Community Development, March 13, 1967 (Pittsburgh), p. 2.

⁶¹ "Air Brake to Tell Transit Plans," *Pittsburgh Post Gazette*, April 13, 1967.

⁶² "City Wins Shot At Transit Title," *Pittsburgh Press*, April 13, 1967; "Westinghouse Making Area Transit Hub," *Pittsburgh Post Gazette*, April 14, 1967.

⁶³ "90-Minute Trip Feasible WABCO Says," *Pittsburgh Press*, April 17, 1967.

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- ⁶⁴ "City Eyes Transit Capital Crown," *Pittsburgh Post Gazette*, April 13, 1967.
- ⁶⁵ "Transit Council Seeking Charter," *Pittsburgh Post Gazette*, November 14, 1967.
- ⁶⁶ *Pittsburgh Post Gazette*, September 23, 1968.
- ⁶⁷ Coleman, "Interest Intermediation", p. 42.
- ⁶⁸ Interview with Joseph M. Barr, July 14, 1972, in *Pittsburgh Renaissance Project*, p. 5. Joe W. Trotter and Jared N. Day, *Race and Renaissance: African-Americans in Pittsburgh since World War II* (Pittsburgh: University of Pittsburgh Press, 2010), pp. 103-140; Alyssa Ribeiro, "'A Period of Turmoil': Pittsburgh's April 1968 Riots and Their Aftermath," *Journal of Urban History*, forthcoming (2012).
- ⁶⁹65. Stewman and Tarr, "Four Decades", pp. 89-90; Morton Coleman, Personal Recollections, January 1991.
- ⁷⁰ Allegheny Conference on Community Development, *Annual Report*, (Pittsburgh, 1968), p. 2.
- ⁷¹ "Skybus Route 'Boom' Studied," *Pittsburgh Press*, March 16, 1969; "Civic Leaders Hail Rapid Transit Push," *Pittsburgh Press*, March 16, 1969; *Pittsburgh Post Gazette*, April 3, 1969; and "Non-Rapid Transit Plan," *Pittsburgh Press*, January 11, 1968.
- ⁷² "PAT Given Cheaper Rail Plan," *Pittsburgh Press*, July 9, 1969.
- ⁷³ *Op.cit.*, Exhibits and Testimony Pages, p. 374a.
- ⁷⁴ Gulf Oil Corporation grew out of Mellon investments at the turn-of-the-century and was run for years by W. L. Mellon. Its chief executives had been closely allied with the Mellon interests for years. David E. Koskoff, *The Mellons: The Chronicle of America's Richest Family* (New York: Thomas Y. Crowell Company, 1978).
- ⁷⁵ *Op.cit.*, Exhibits and Testimony Pages, p. 373a; and "Wabco Cites Low Cost of Transit Plan," *Pittsburgh Press*, July 9, 1969.
- ⁷⁶ "City's 'Transit Capital' Claim At Stake in PAT Hearings," *Pittsburgh Press*, August 17, 1969.
- ⁷⁷ *Op.cit.*, Exhibits and Testimony Pages, pp. 375a-388a; Interview with Leland Hazard.
- ⁷⁸ *Ibid.* Flaherty also noted that while WABCO presented its plan at the hearings, PAT and not Westinghouse discussed the Early Action Program and Skybus.
- ⁷⁹ Letter, Peter Flaherty to Morton Coleman, August 21, 1991. Westinghouse's

Jernstedt concurred that the technological issues all boiled down to concerns for safety and that PAT knew by 1968 that these concerns would be discussed. Hazard believed that WABCO's attack on the technology was really instigated by a "feud" between the Westinghouse siblings over their traditional policy of not competing in certain fields of business. WABCO felt that Westinghouse was encroaching on their transportation business. Interview with George W. Jernstedt, and Interview with Leland Hazard.

⁸⁰ Interview, Peter Flaherty, Pittsburgh, August 13, 1991.

⁸¹ *Op.cit.*, Exhibits and Testimony Pages, pp. 395a-397a; and *op.cit.*, Brief for the Defendant, p. 9

⁸² Letter to Leonard C. Staisey, Chairman of the Board of County Commissioners, August 25, 1969, in Exhibits and Testimony Pages, pp. 393a-394a.

⁸³ "Skybus Endorsed," *Pittsburgh Post Gazette*, October 21, 1969; and "Urban Post for Ryan: Skybus Boost," *Pittsburgh Press*, October 21, 1969. Hazard believed that U.S. Steel executives disliked the rubber wheel technology because it did not use as much steel as the steel rail alternative and used their considerable influence against Skybus. Interview Leland Hazard.

⁸⁴ *Op.cit.*, Exhibits and Testimony Pages; and Minutes, Meetings of the Executive Committee, Allegheny Conference on Community Development, February 9, 1970 (Pittsburgh). Hazard viewed Hunt as a political opportunist, who represented the negative position of the railroad unions in the Skybus debate. Interview with Leland Hazard.

⁸⁵ *Pittsburgh Post Gazette*, February 11, 1970; and "DOT May Delay Skybus Approval," *Pittsburgh Post Gazette*, February 18, 1970.

⁸⁶ *Op.cit.*, Exhibits and Testimony Pages, pp. 400a and 406a; *Pittsburgh Post Gazette*, July 17, 1969; *Pittsburgh Press*, November 19, 1970; and *op.cit.*, Brief for the Defendant, pg. 9.

⁸⁷ *Op.cit.*, Exhibits and Testimony Pages, pp. 407a, 411a-412a, 438a; *op.cit.*, Brief for Defendant, pp. 9-13.

⁸⁸ *Op.cit.*, Flaherty v. Port Authority, pp. 616-617; *op.cit.*, Exhibits and Testimony Pages, p. 653a; Interview with John P. Robin, July 9, 1969, Pittsburgh; Interview with Robert B. Pease, August 3, 1991.

⁸⁹ Interview with Robert B. Pease.

⁹⁰ Interview with Robert B. Pease, January 11, 1995.

⁹¹87. "Super Agency For Transit Urged Here", *Pittsburgh Press*, November 16, 1965; "Joint Transit Agency Urged by Judge Lewis", *Pittsburgh Post Gazette*, November 16, 1965.