

Changes in Service Levels, Fares, and Funding for Small Urban Transit Agencies: Survey Results

Preliminary Report

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SUMMARY

The Small Urban & Rural Transit Center (SURTC) conducted a survey of transit agencies serving small urbanized areas (with a population of 50,000 to 200,000). The survey collected information from across the country regarding recent changes in service levels, fares, operational funding, and ridership. Similar to a recent survey by the American Public Transportation Association, the survey asked transit agencies to report any action they had taken since January 1, 2009, or actions they were considering for the future. The survey also inquired about the motivation behind service and fare changes, thoughts about the rationale for transit subsidies, and the role that factors such as congestion, safety, and environmental issues play in marketing transit services and obtaining funding. Responses were received from 141 transit agencies.

The major findings from the survey are:

- Forty-seven percent of transit agencies surveyed have either increased fares or reduced service, and 14% have done both.
- Two-thirds of transit agencies responding to this survey said that demand for transit service in their community is increasing; 28% answered that demand is staying about the same, while just 4% said that demand is decreasing.
- Of those who said that demand is increasing, most (94%) said their agency is facing limitations in its ability to add service to meet this demand.
- Thirty-six percent of agencies reported decreased operational funding from local or regional sources over the last year, while 34% said the same about state funding. Federal funding levels were mostly unchanged.
- On average, these agencies reported increased ridership since 2008, though there is significant variation in response, including 30% that said ridership has decreased. Meanwhile, a quarter reported that ridership is up more than 10%.

The survey also revealed a number of other findings:

- Thirty percent of the transit agencies that responded said they have made reductions in service since January 1, 2009, or are in the process of implementing such reductions, and an additional 9% are considering cuts.
- Transit agencies that have made service reductions have done so largely due to decreases in funding.
- About 60% of those respondents who made cuts thought the reductions would be enough to resolve the problem caused by decreased funding or higher costs, while 40% indicated that the problems persist.

- Many have also added new service. In fact, half of the agencies responding have made increases in service levels since January 1, 2009, or are in the process of implementing such increases, and an additional 10% are considering doing so.
- Forty-one percent of those who added service said they were motivated by increased funding, while 66% said the service was added due to increased demand (some agencies cited both as factors).
- Thirty-three percent of transit providers said they have increased fares since January 1, 2009, or are in the process of increasing fares, and an additional 12% are considering increasing fares.
- Of those that increased fares, half said they did so to offset decreased funding, while some also cited higher fuel costs (41%), increases in other costs (36%), or decreases in other revenues (18%).
- Sixty-one percent of the transit agencies that increased fares thought the higher fare would be enough to resolve the problems precipitating the increase. Of those with a persisting problem, some are considering further fare increases.
- Many transit agencies have taken more than one type of action. Of those agencies that made service reductions, half of them also increased fares, and 38% countered the service cuts by increasing service elsewhere. Of those that increased fares, 64% also made increases in service while 45% cut some service.
- Thirty-six percent of agencies that increased fares thought they lost riders due to the higher fares.
- Ninety-one percent said that enhancing mobility for the underprivileged was a reason for subsidies, 76% thought offsetting social costs of automobile travel (such as congestion, pollution, etc.) provided justification for subsidies, and 63% said the same for taking advantage of economies of scale.
- Transit agencies also gave a number of other reasons for justifying subsidies, such as promoting livable communities, offsetting subsidies given to highways and automobile travel, providing alternatives to automobiles, and encouraging economic growth.
- Regarding the social costs, or consequences, of automobile travel, the survey asked transit providers if they refer to any of them when trying to obtain funding or marketing their services. When obtaining funding, 65% said they mention air pollution, 55% refer to congestion, and just over half mention greenhouse gas emissions, while smaller percentages refer to other costs. Similar percentages refer to these factors when marketing their services.

1. INTRODUCTION

Transit agencies across the country have been faced with the dilemma of having to either increase fares or reduce service levels due to tightening budget constraints. The American Public Transportation Association (APTA) conducted surveys of transit systems recently and found that many have experienced reductions in revenue, because of the recession, or higher costs, particularly fuel costs (APTA 2008, 2009, 2010). As a result, APTA found that a large majority of transit agencies have reduced service or increased fares or were considering either of these actions for the future. These actions have occurred at a time when ridership nationwide has been at its highest level in several decades. The resulting impacts of these changes on system users and social welfare can be considerable.

As part of a larger study that is attempting to quantify the internal and external costs of transit operations in small urbanized areas, estimate the social impacts of recent changes in fares and service levels, and determine optimal transit fares and subsidy levels, the Small Urban & Rural Transit Center (SURTC) conducted a survey of transit agencies serving small urbanized areas. Similar to the APTA surveys, this survey collected information on recent changes in fares, service levels, and funding. In addition, it also asked about service increases, factors motivating service and fare changes, and the rationale for transit subsidies. While the APTA surveys collected information from transit agencies of all sizes, this survey focused on those serving small metropolitan areas with a population of 50,000 to 200,000.

The survey was conducted of urban transit systems receiving section 5307 funding and serving areas with a population below 200,000. It was conducted online, and invitations to participate were sent by email. A list of small urban transit agencies was obtained from the 2008 National Transit Database (NTD). Using the NTD, 394 transit systems were identified. Contact information for these systems was obtained largely through the NTD website and through the APTA member profile information. Of these, contact names and email addresses were found for 318 agencies. However, a couple individuals were listed as contacts for multiple systems, leaving 313 actual contacts. Many of these contacts were managers of the transit system, though some were not directly involved in transit operations. Original emails were sent to these 313 contacts. Eight of the emails were returned as undeliverable due to incorrect or outdated addresses. That left 305 transit agencies that received the survey. Two weeks after the original email invitations were sent, a reminder email was sent to those who had not yet taken the survey. A third email was sent a week later to everyone on the list thanking respondents and giving those who had not responded one last chance to complete the survey. The survey was conducted from November 9, 2010, to December 7, 2010.

Responses were received from 141 transit agencies, yielding a response rate of 46%. Transit agencies from all parts of the country were represented, including 21 from northeast or mid-Atlantic states (FTA regions 1-3), 43 from the Midwest (FTA regions 5 and 7), 30 from southern states (FTA regions 4 and 6), and 37 from western states (FTA regions 8-10), with the remainder not identifying their location.

2. CHANGES IN SERVICE LEVELS

2.1 Service Reductions

Thirty percent of the transit agencies responding said they have made reductions in service since January 1, 2009, or are in the process of implementing such reductions. Of those that have not made any service cuts, 13% are considering making reductions. Combined, 39% of respondents have made cuts since January 1, 2009, or are considering cuts (Figure 1). Furthermore, nearly half (49%) of those that have already made cuts are considering further reductions in service.

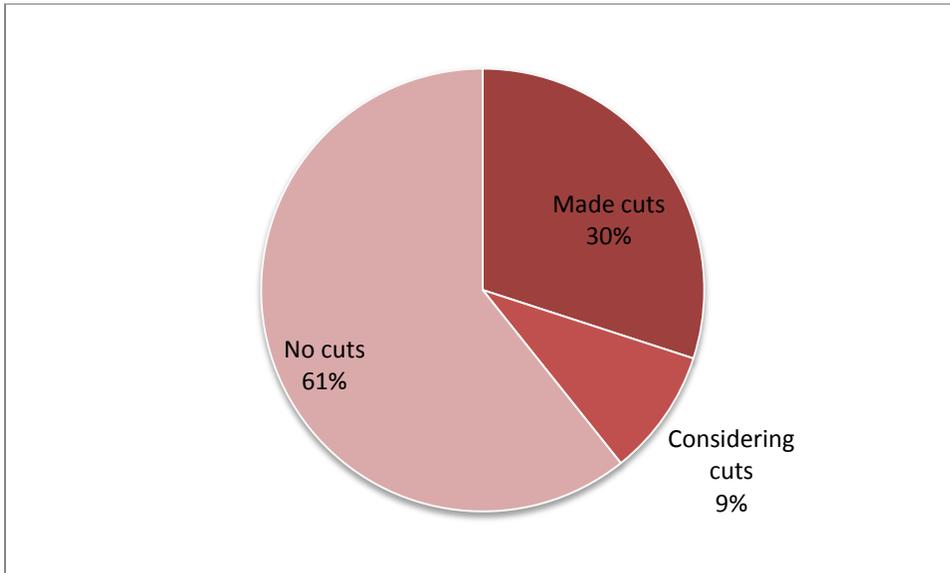


Figure 1. Agencies that have made cuts in service since January 1, 2009, or are considering cuts (n=140)

The most common cut made by transit agencies was a reduction of service hours, made by 74% of those that cut service (Figure 2). The next most common cut was a reduction in service frequency on existing routes. Other cuts included elimination or reduction of weekend service and reduction in geographic coverage of service, which was less common. Others mentioned eliminating intercity service or reducing non-ADA-required paratransit service.

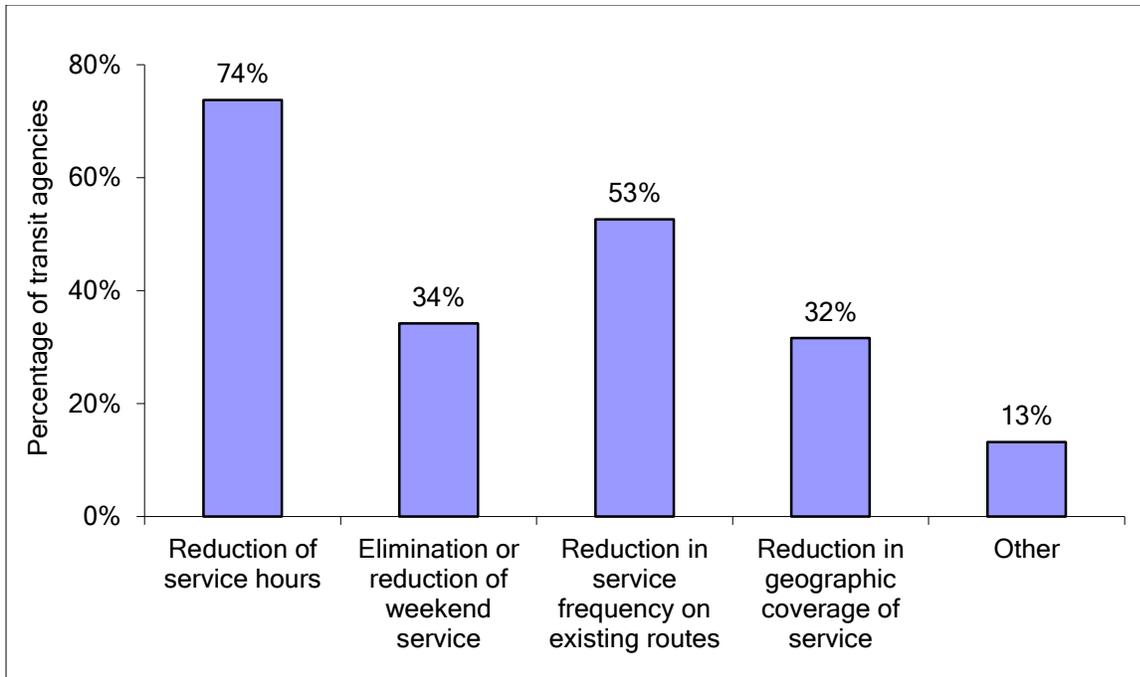


Figure 2. Cuts by transit agencies that have made service reductions (n=38)

Transit agencies that have made service reductions have done so largely due to decreases in funding. Smaller percentages of these transit providers said they reduced service due to decreases in other revenues, increases in fuel or other costs, or decreases in service demand (Figure 3).

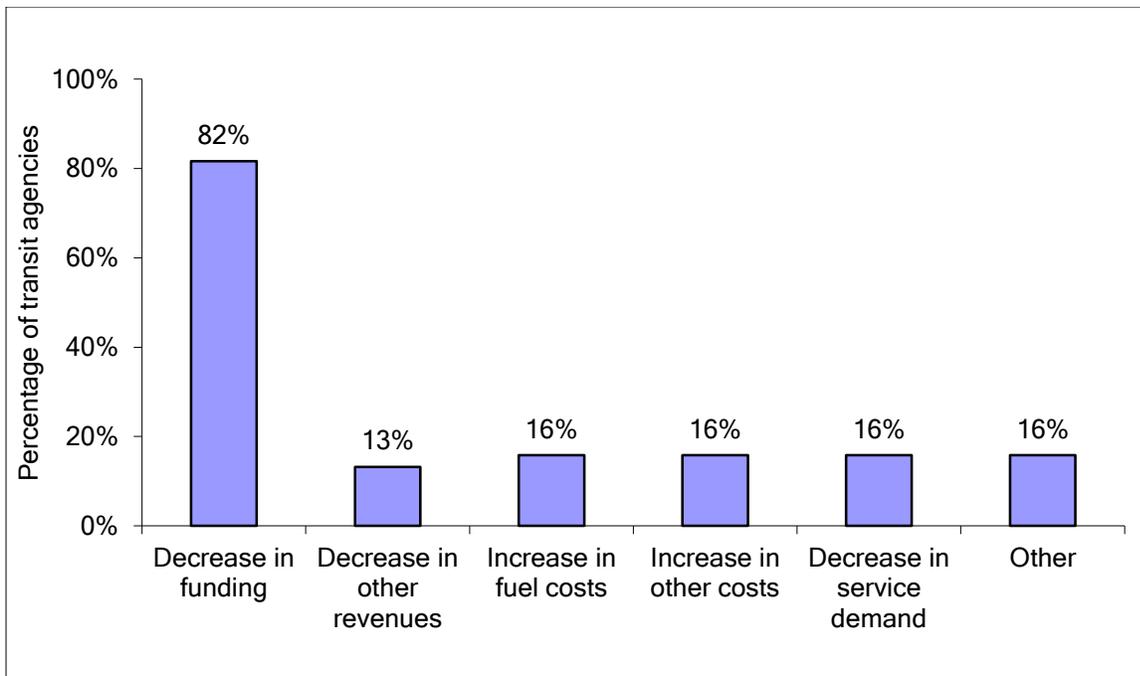


Figure 3. Factors that motivated decisions to cut transit service (n=38)

Most of the service reductions were due to decreases in revenues or increases in costs, while few were actually due to a decrease in demand. About 60% of those that have made cuts thought the reductions would be enough to resolve the problem (i.e., reduced revenue or increased cost), while 40% indicated that the problems persists. Mostly due to decreases in funding, about half of the transit agencies that have reduced service are considering further reductions. Cuts under consideration are largely similar to those already made, with reductions in service hours being the most common.

2.2 Service Increases

Fortunately, while several transit agencies have struggled with the need to cut service, many have also added new service. In fact, half the agencies responding have made increases in service levels since January 1, 2009, or are in the process of implementing such increases (Figure 4). Of those that have not increased service, 19% are considering doing so.

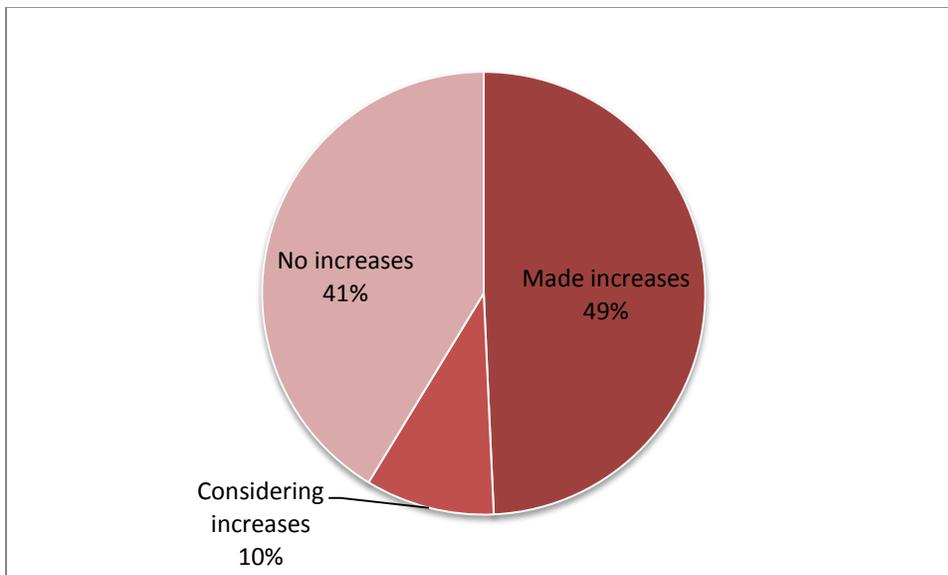


Figure 4. Transit agencies that have added service since January 1, 2009, or are considering increases (n=138)

While the service cuts were most commonly a reduction in service hours, the types of services added were more widely distributed, including increases in geographic coverage of service (54%), increases in service hours (42%), increases in service frequency on existing routes (37%), and the introduction or increase of weekend service (22%) (Figure 5).

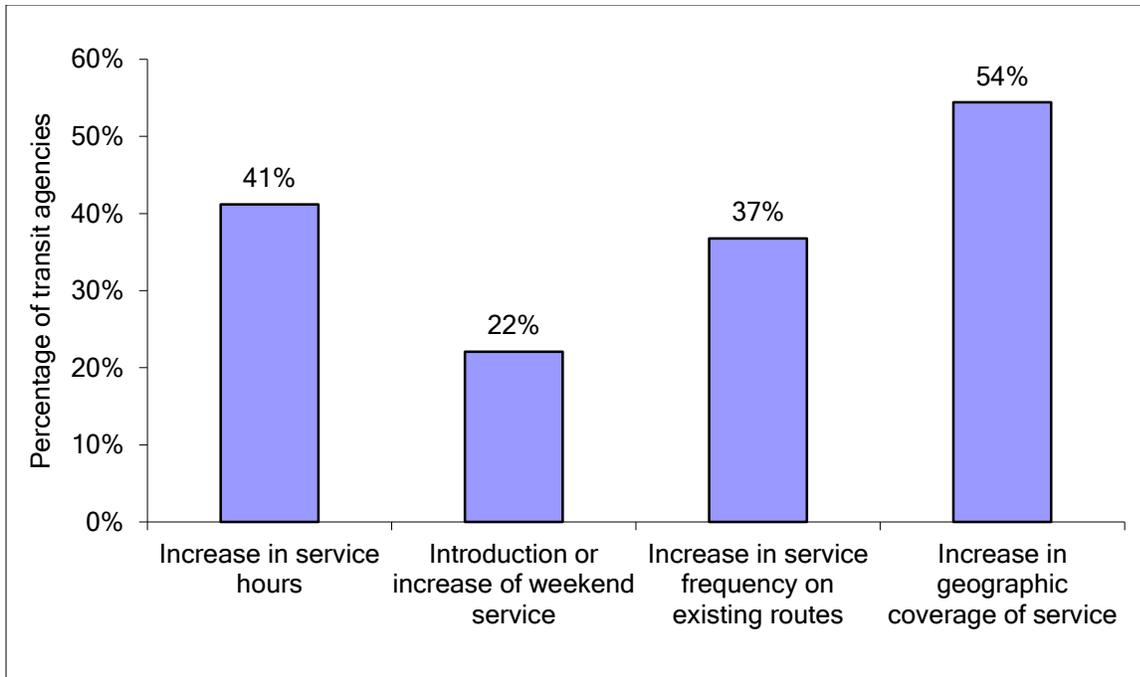


Figure 5. Types of services added by transit agencies that have made service increases (n=68)

Unlike service cuts, which were motivated primarily due to funding decreases or higher costs, service additions were influenced partly by changes in funding but more so by changes in demand. Forty-one percent of those that added service said it was motivated by increased funding, while 66% said the service was added due to increased demand (some agencies cited both as factors). Other motivating factors noted by transit providers included fuel costs subsiding to more realistic levels, a desire to improve consistency and ease of understanding the system, or issues with running time, while a few mentioned that services were added to alleviate issues created with the reduction of other services. An increase in demand for service is the primary reason why some agencies are considering further service additions, while some also noted increased funding.

3. FARE CHANGES

3.1 Fare Increases

In response to reduced revenues and higher costs, transit agencies may be forced to choose between the options cutting service or increasing fares, or both. The survey found that the percentage of transit agencies that chose to increase fares is roughly equal to the percentage that reduced service. About 33% of transit providers said they have increased fares since January 1, 2009, or are in the process of increasing fares (Figure 6). Of those that have not increase fares, 18% are considering a fare increase. Agencies are slightly more likely to increase fares rather than reduce service, but the difference is small. The most common fare increase was \$0.25 per ride for the base fare.

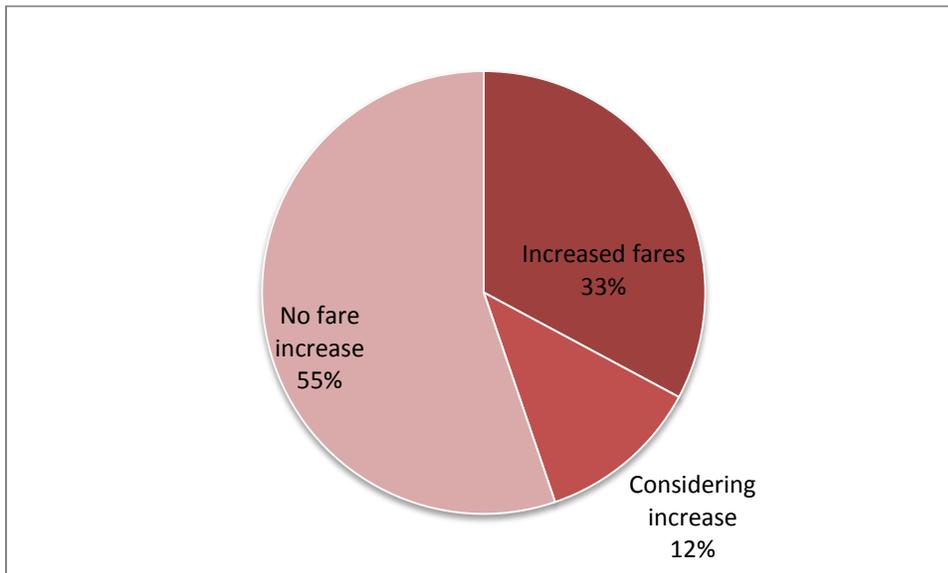


Figure 6. Percentage of transit agencies that have increased fares since January 1, 2009, or are considering fare increases (n=134)

Transit agencies gave a number of reasons for increasing fares. Of those that increased fares, half said they did so due to decreased funding, while some also cited higher fuel costs (41%), increases in other costs (36%), or decreases in other revenues (18%) (Figure 7). Some transit agencies may have increased fares so they could maintain their level of service. One provider said that passengers requested the city council increase fares to retain weekend service, and another said they increased fares to allow for increased service on evening and weekends.

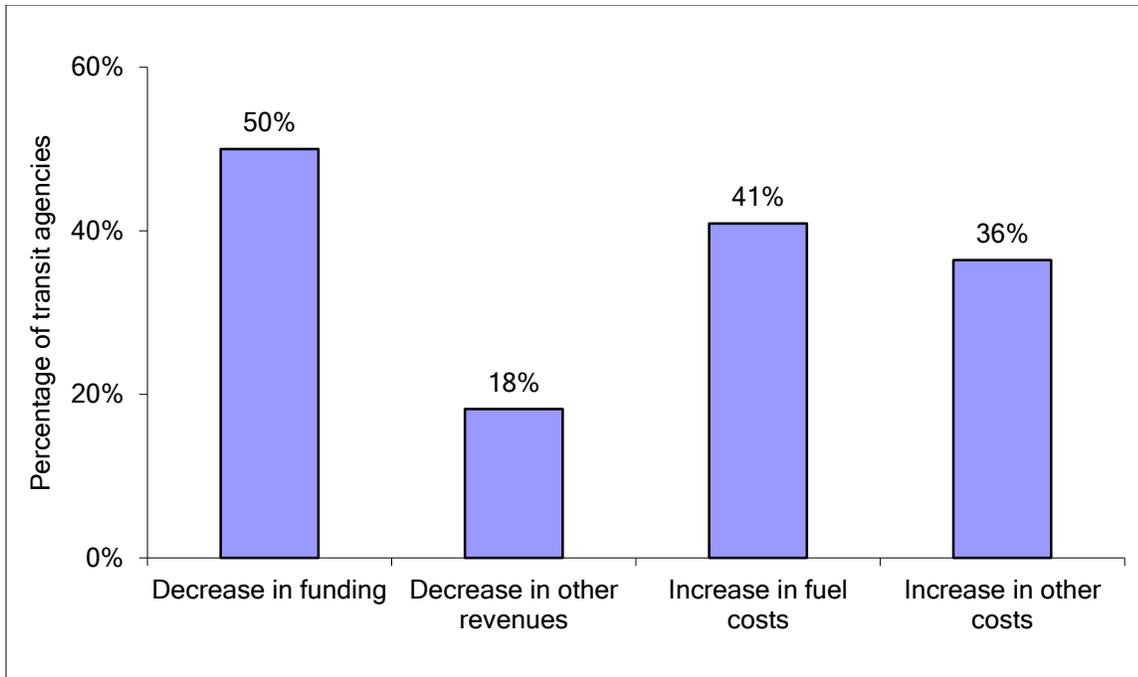


Figure 7. Motivations for fare increases (n=44)

Sixty-one percent of the transit agencies that increased fares thought the higher fare would be enough to resolve the problems precipitating the increase. Of those with a persisting problem, some are considering further fare increases. Fifteen percent of agencies that have increased fares are considering further increases.

One potential consequence of fare increases is a loss in ridership because some users either cannot afford the higher cost or no longer think it is economical to ride. Judging if a system has lost riders due to fare increases can be difficult, especially when a number of other factors influence ridership. When asked if they thought their system had lost riders because of their fair increase, 36% of respondents said yes, 46% thought they had not lost riders, and 18% answered that they did not know. Of those that estimated they had lost ridership, most speculated the decrease to be around 1% to 10%, while some mentioned greater reductions. A couple respondents noted that ridership was down due to both fare increases and service reductions. One respondent also said that ridership is down due to the recession because of fewer work-related trips, so it is difficult to estimate the impact of the fare increase.

3.2 Fare Decreases

A small number of transit agencies indicated they have made some reductions in fares. Seven percent of the transit systems surveyed said they had decreased fares since January 1, 2009, or are in the process of making a reduction. The types of reductions mentioned include adding free rides for veterans with disabilities, providing lower fares for seniors or people with disabilities, introducing monthly passes that could save users money, decreasing the cost of monthly passes, providing half fares on Saturdays, and reducing evening fares.

4. COMBINED ACTIONS TAKEN

Many transit agencies, of course, have taken more than one type of action. Of those agencies that made service reductions, half of them also increased fares, and 38% countered the service cuts by increasing service elsewhere (Table 1). Of those that increased fares, 64% also made increases in service, while 45% cut some service.

Table 1. Other Actions Taken by Agencies that Have Cut Service or Increased Fares

Other Actions	Agencies that have:	
	Cut Service	Increased Fares
Cut Service		45%
Increased Service	38%	64%
Increased Fares	51%	
Decreased Fares	5%	11%

As shown in Table 2, 47% of transit agencies surveyed have either increased fares or reduced service, and 14% have done both. Sixty-one percent have implemented or are considering either a fare increase or a service cut. While these percentages are high, they are lower than those found in APTA's (2010) survey, suggesting smaller transit agencies have not been influenced as severely by budget constraints.

Table 2. Service or Fare Actions Taken or Being Considered

	Implemented Since January 1, 2009, or Approved	Considering Future Action	Implemented AND Considering additional Future Action	Implemented OR Considering Future Action
Service Cuts	30%	23%	14%	39%
Service Increase	50%	28%	18%	59%
Fare Increase	33%	17%	5%	45%
Fare Increase AND Service Cuts	14%	7%	3%	19%
Fare Increase OR Service Cuts	47%	33%	18%	61%

5. RIDERSHIP CHANGES AND DEMAND FOR SERVICE

Transit ridership nationwide peaked in 2008 at its highest level in over 50 years. Total ridership has since declined some, possibly due to fewer trips being made because of the recession and the attractiveness of transit declining somewhat as gas prices decreased from 2008 levels. Service cuts and fare increases could be playing a role as well. However, the decline in bus ridership in small urban areas in 2009 was small, according to APTA data, and ridership in areas with population below 100,000 was actually up nearly 4% during the first three quarters of 2010.

Respondents to the survey were asked to identify how much ridership has changed on their system since 2008.¹ Responses covered a wide spectrum (Figure 8). Thirty percent said ridership had decreased, including 12% who indicated a loss of more than 10%; 9% said there has been no change; and 61% answered that ridership has increased, including 25% who said their ridership is up more than 10%. On average, these agencies reported increased ridership, though there is some variation in response.

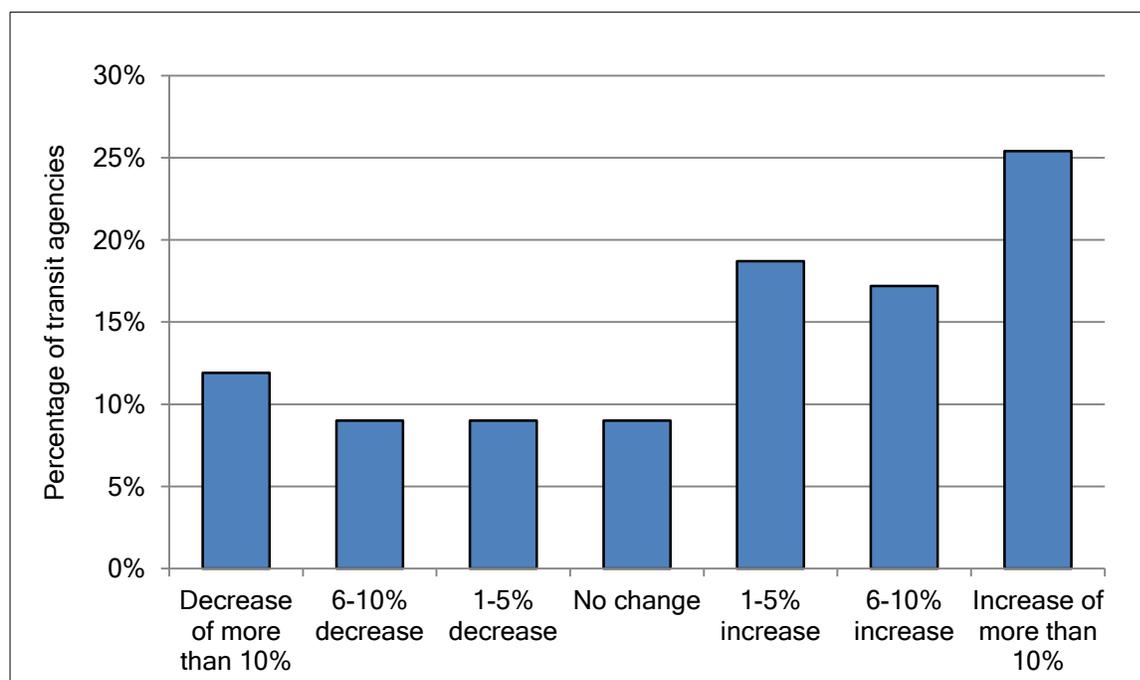


Figure 8. Change in ridership reported since 2008 (n=134)

Related to ridership is the concept of demand. Demand refers to the amount of service that would be used or quantity of products that would be consumed by individuals at a given price. Ridership could change due to changes in fares, but an actual change in demand would indicate a greater number of people in the service area who would use the service at a given price. Demand for transit service could increase due to population growth in the area or shifts in demographics, where there are greater numbers of individuals that are more likely to use transit, such as older adults, people with disabilities,

¹ To facilitate ease of survey completion, respondents were given ranges of possible ridership changes rather than being asked to identify the exact change in ridership.

immigrants, or low-income individuals. There could also be a number of other factors causing an increase in demand for transit.

Two-thirds of transit agencies responding to this survey said that demand for service in their community is increasing; 28% answered that demand is staying about the same, while just 4% said demand is decreasing. If these perceptions about demand are correct, it would indicate that most of the decrease in ridership experienced by some agencies would be due to service cuts or higher fares and not actual decreases in demand for the service.

Of those who said that demand is increasing in their community, most (94%) said their agency is facing limitations in its ability to add service to meet this demand.

6. CHANGES IN FUNDING

The primary reason given for reducing service or increasing fares was a decrease in funding. Survey results show that decreases in operational funding over the last year were more common than increases, although transit providers most commonly said funding had remained the same, and a few reported increases (Figure 9). Funding decreases were more likely at the local, regional, and state levels, while federal funding mostly remained the same.

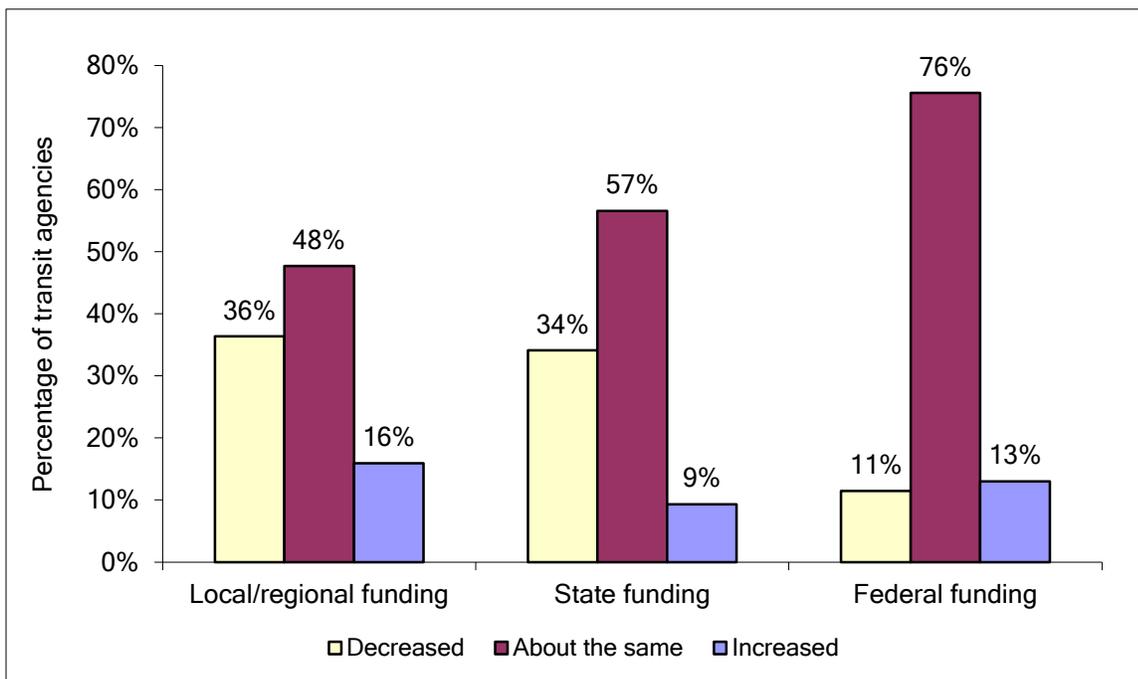


Figure 9. Changes in operational funding over the last year (n=132)

7. MARKETING AND RATIONALE FOR SUBSIDIES

As Vickrey (1980) wrote, there are three basic elements that provide justification for subsidizing transit: 1) special needs for transit by the underprivileged, such as people with disabilities or low-income individuals who are unable or cannot afford to drive or access other forms of transportation; 2) the existence of subsidies to other modes of travel; and 3) the fact that transit operates under conditions of substantial economies of scale.

The first rationale is that transit provides mobility and access to those who would otherwise not have it. By providing this service, transit systems can create substantial benefits to the users and the community. These benefits include increased access to jobs, health care, education, shopping, social activities, etc.; greater economic activity in the community; and a general, unquantifiable, improvement in quality of life for individuals who use the service.

Economies of scale is also an important element for justifying transit subsidies. What this means is that as the number of riders increases, the average cost per trip decreases, or the quality of the service improves. Improved service could also result in less cost to the user in terms of less time waiting. Providing these services, though, involves large upfront capital costs. When economies of scale exist, the least costly way to serve users is to have a single entity provide the service. An alternative to subsidizing the transit agency would be to provide payments to underprivileged individuals who lack access to transportation to pay for transportation. Theoretically, there could be multiple organizations competing to provide such rides. However, such a setup would not be as cost-effective as long as economies of scale exist. Because transit systems cannot manage without a subsidy, these subsidies are needed to take advantage of the cost-effectiveness of the single agency providing a higher level of service.

Lastly, transit subsidies are justified if automobile travel is also subsidized. One way that automobile travel is subsidized is that there are many social costs to automobile travel not paid by the user. For example, additional automobile travel can increase congestion, air pollution, greenhouse gas emissions, and automobile accidents. These are costs that are borne by society and are referred to as negative externalities. In addition, the cost of supplying parking can often be great, and automobile users often do not pay these costs. Automobile travel can also strengthen dependence on foreign energy supplies. In large urban areas, many of these social costs, such as congestion, air pollution, and parking, are serious concerns, while in small urban or rural areas, they may be of lesser concern or no concern at all.

The survey asked transit agencies whether or not they view each of the following as a rationale for transit subsidies: to enhance mobility for the underprivileged, to offset social costs of automobile travel (such as pollution, greenhouse gas emissions, and congestion), and to take advantage of economies of scale (that is, the ability to be more cost effective). Ninety-one percent said that enhancing mobility for the underprivileged was a reason for subsidies, 76% thought offsetting social costs of automobile travel provided justification for subsidies, and 63% said the same for taking advantage of economies of scale (Table 3).

Table 3. What Do You View as the Rationale for Transit Subsidies? (check all that apply)

Answer Options	Number	Percentage
To enhance mobility for the underprivileged	119	91%
To offset social costs of automobile travel, such as pollution, greenhouse gas emissions, and congestion	100	76%
To take advantage of economies of scale (that is, the ability to be more cost-effective)	83	63%
Other responses		
Livability		
<ul style="list-style-type: none"> • Enhance mobility to all segments of the population • Enhance quality of life, promote livable communities • Maintain an independent lifestyle for seniors • Mobility enhancement for many groups - not just the underprivileged 		
Automobile subsidies		
<ul style="list-style-type: none"> • All transportation is subsidized including roads/highways • To compete vs. the auto, which is also subsidized • Other modes are subsidized • Roads are subsidized as well. • To balance the last 70 years of road subsidy. 		
Providing alternatives		
<ul style="list-style-type: none"> • Cheaper than building new roads. • Address auto oriented land use • Demonstrate to students that transit is a viable travel mode choice. • Provide choice to auto dependent society • Provide transportation choice to "choice" riders • Options, safety, convenience • Reduce student parking difficulty and cost • Transit is part of the transportation infrastructure. As infrastructure requirements of an aging population change, the funding for those infrastructure components must also change. • Urban area growth has increased demands on transit - more riders, more stops, more traffic congestion all contribute to the need for more transit. 		
Economic development		
<ul style="list-style-type: none"> • Transit provides economic viability, connectivity, job growth, and development. • Economic- attracting employers, ride to work, ride to college/community college • Economic development and providing a connection between affordable housing and jobs • Used as an economic development tool and providing access to jobs. • To encourage economic growth and business development. • Increase economic activity among those unable or unwilling to use an auto 		

Transit agencies also gave a number of other reasons for justifying subsidies, which are shown in Table 3. Some noted that transit is needed to enhance quality of life, promote livable communities, and enhance mobility for all segments of the population, not just the underprivileged. Others noted that transit subsidies are justified because other modes, including automobile travel, are subsidized as well. This rationale is completely in line with what was previously discussed, though the survey did not

specifically include it as an option. Several respondents commented that subsidies are needed because it is important to provide alternatives to automobiles. One respondent specifically argued that transit is part of the transportation infrastructure, and that as the population changes, the funding for those infrastructure components must also change. A number of respondents also said that transit provides economic viability and is used to encourage economic growth. Future surveys of transit agencies should include these additional categories as potential rationale for transit subsidies.

Regarding the social costs, or consequences, of automobile travel, the survey asked transit providers if they refer to any of them when trying to obtain funding. The most commonly referred to was air pollution, which 65% of transit agencies said they mention when seeking funding (Figure 10). Fifty-five percent refer to congestion, and just over half mention greenhouse gas emissions. Smaller percentages refer to the other costs, while 27% said they do not refer to any of the ones listed.

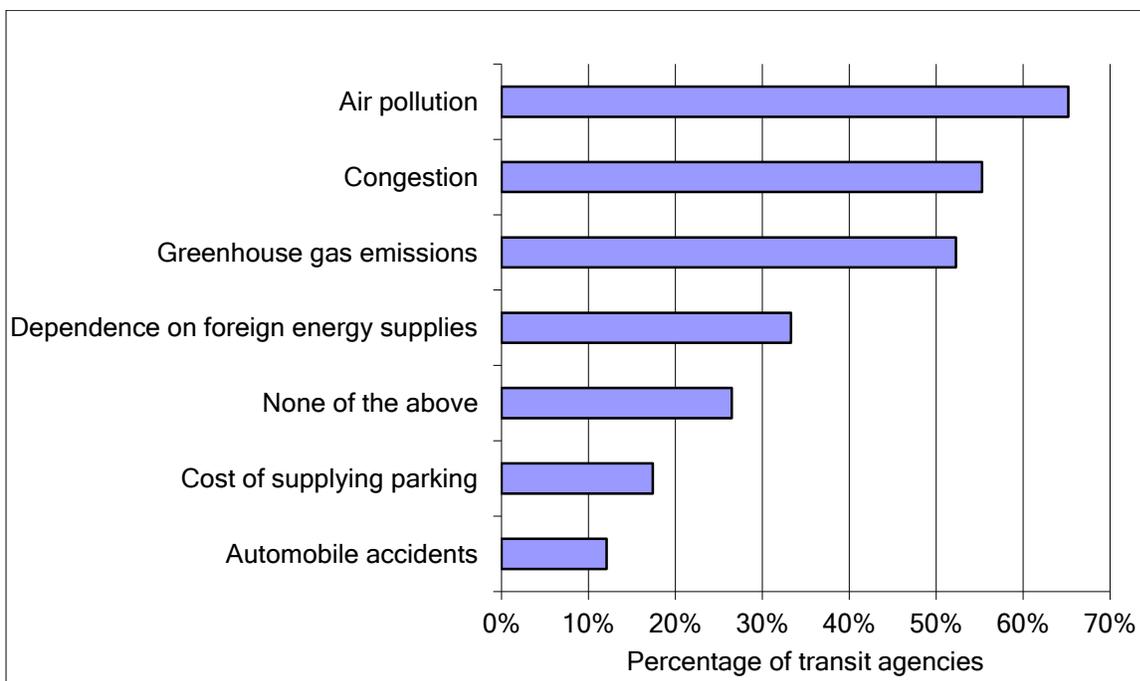


Figure 10. Percentage of transit agencies that refer to any of the following consequences of automobile travel when trying to obtain funding (n=132)

Transit agencies were similarly asked if they refer to any of these factors when marketing their services, with similar results (Figure 11). Respondents commonly mentioned that they also refer to other factors when marketing their services, such as the cost savings to riders and the convenience of not driving. The cost advantage of using transit versus the expense for owning and operating a personal vehicle was frequently mentioned. These factors were not included as options in the survey since we were specifically examining how transit agencies take into consideration the social costs, or negative externalities, of automobile travel when marketing their services and obtaining funding.

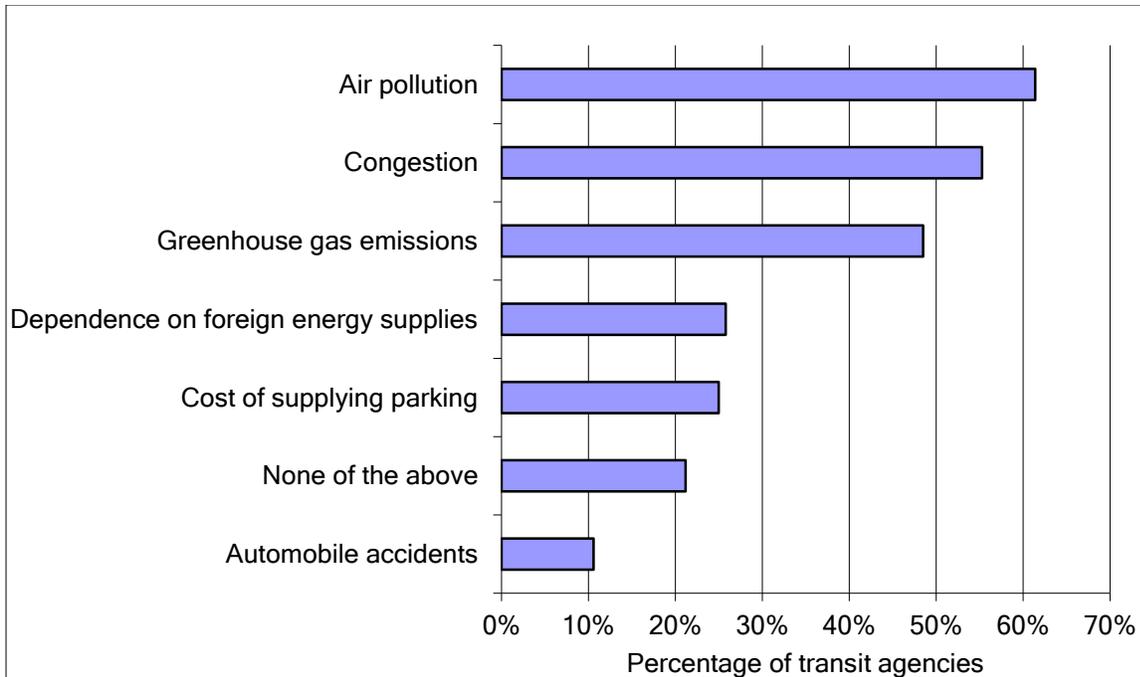


Figure 11. Percentage of transit agencies that refer to any of the following consequences of automobile travel when marketing their service (n=132)

8. CONCLUSIONS

The survey found that close to half of transit agencies in small urban areas have either reduced service or increased fares over the last two years. The main reason for these actions has been a decrease in funding. Federal operational funding has largely remained the same, but several agencies reported decreased funding from local, regional, and state sources. Similar findings have been reported from recent surveys conducted by APTA. However, the results from this survey were somewhat less dire than what was reported by APTA. APTA (2010) found that smaller agencies were less affected by the recession and that they were less likely to face declining revenues or to cut service or increase fares. Our survey seems to confirm these findings, though it still shows that many are faced with the dilemma of having to reduce service or increase fares at a time when demand is growing. Most transit agencies reporting increased demand said they are facing limitations in their ability to add service to meet that demand. Despite this, the survey found that service increases were more common than cuts, as half of the transit agencies responding to the survey have added service over the last two years. Transit providers provided many justifications for subsidizing transit operations.

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