

SECTION 5

Guidance for Conducting Physical Functional Assessments for ADA Paratransit Eligibility

Introduction

This section contains guidance on conducting physical functional assessments of ADA paratransit eligibility. The following materials are included:

- “Physical Functional Assessments – Step-by-Step Instructions;”
- “Recommended Core Competencies for Persons Conducting Physical Functional Assessments for ADA Paratransit Eligibility;”
- “Physical Functional Abilities Assessment Form;”
- “Optional Assessment of Risk for Falling: The Tinetti Balance and Gait Test;” and
- A CD-ROM that illustrates key parts of the assessment along with instructions for its use.

Managers of the ADA paratransit eligibility determination process can use the “Recommended Core Competencies” to select appropriate staff to perform this portion of the process. If this part of the process is outsourced, the recommended core competencies can be included in an RFP for selecting contractors.

Note that the step-by-step description of the assessment process contains several “optional” elements. This includes elements for assessing ability to negotiate flights of stair and elevators, use low-floor buses, pay a fare, and stand on a moving vehicle. As described in each of these steps, the inclusion of these optional elements in a local assessment process will depend on the design of the local transit system and on local operating policies and procedures. Ability to use elevators or negotiate flights of stairs will only apply to systems that have these features (e.g., rail systems). Ability to pay a fare or stand on a moving vehicle might not apply if operating policies and procedures can ensure that riders with disabilities will always get a seat and if alternative fare media and assistance with fares is available.

The step-by-step instructions and “Assessment Form” included in this section are meant to serve as a starting point for the development of a process appropriate to each area. The elements that apply to each area should be adopted or modified as appropriate. The Assessment Forms are included on the CD-ROM at the end of this section and can be downloaded and modified as needed.

It is also important to note that many states have specific safety and licensing requirements for the administration of functional assessments. Research these requirements in cooperation with the professionals chosen to develop and implement the process.

As with all other aspects of ADA paratransit eligibility determination, the modification of these materials and final design of a physical functional assessment process should be done with full and meaningful input from persons with disabilities and disability organizations.

Physical Functional Assessment – Step-by-Step Instructions

The steps below are organized to follow the structure of the suggested assessment form and are intended to lead an assessor through the completion of the assessment form.

The Physical Functional Abilities Assessment Form to record observations of physical functional abilities is provided at the end of this Attachment and on CD3 as a printable Word document.

While this guidance outlines a complete assessment of all skills needed to use fixed route service, it should be noted that it may not always be appropriate or necessary to ask applicants to perform all of the tasks detailed below. Observations made in the early stages of the assessment may allow assessors to have a good understanding of likely ability to perform later tasks. Professional judgment will be needed to determine which parts of this suggested assessment are appropriate for each applicant.

STEP 1 Review Application Materials

In some systems, the person who conducts the initial interview with the applicant will also conduct the physical functional assessment if it is determined that this would be helpful in making a decision. In other systems, however, the initial interview might be conducted by one person and the physical functional assessment by another individual.

If the person who conducted the initial interview also administers the physical functional assessment, application materials would already have been reviewed as part of the interview. If the physical functional assessment is conducted by someone who did not perform the initial interview, the first step would be for this person to review applicable materials. This would include the application form completed by the applicant, any documentation or verification of disability presented by the applicant, and notes from the initial interview.

The *General Information* section of the *Physical Functional Abilities Assessment Form* would be completed by the assessor using information from the application and interview materials. As much of the *Background Information* and *Information About Mobility Aids* sections of the form as is possible would also be completed using information provided by the applicant in the application form or in the interview. This is important in order to avoid asking the same question repeatedly.

STEP 2 Greeting the Applicant and Reviewing/Collecting Background Information

As appropriate, the assessor would review background information and information about mobility aids that has been gleaned from other materials to ensure that it is accurate. Additional information required in these portions of the *Physical Functional Abilities Assessment Form* would then be requested. Again, **an effort should be made to avoid asking the same questions**

twice. Information that might not be requested in the application form or initial interview which might be requested at the outset of the physical functional assessment might include:

- Asking the applicant if he/she has taken medications that day (as appropriate);
- Asking the applicant how they are feeling that day (if the disability is noted to be variable in nature);
- Noting which mobility aids are being used for the assessment;
- Noting if mobility aid use is dependent, independent, or with partial assist;
- Asking the applicant how long they have used that mobility device; and
- Obtaining more precise measurements of any wheelchair dimensions and weight.

STEP 3 General Assessment of Balance and Gait

Before proceeding to the main components of the physical functional assessment, it may be helpful to develop a general understanding of the applicant's balance and gait. Such an understanding will then help to determine which portions of the assessment are appropriate.

Some understanding of balance and gait can be gained by simply observing applicants as they enter the interview area, take a seat, and rise from their seat and go to the interview room. A more formal assessment of balance and gait can also be done using the Tinetti Balance and Gait Test. This fairly common standardized test is often administered as a way to determine risk of falling. A description of the test is provided at the end of this section. If the Tinetti Balance and Gait test is used, staff should be adequately trained in its administration and scoring.

Figure 5-1. Assessor in Pittsburgh Testing Applicant's Balance Using Tinetti Balance Test



STEP 4 Measuring Vital Signs (OPTIONAL)

As part of the physical functional assessment, you may opt to record the applicant's vital signs as part of the process. This would include recording blood pressure (mmHg), pulse rate (beats per minute), and respirations/breathing rate (breaths per minute).

If vital signs are measured, it is recommended that they be recorded prior to taking the applicant on a simulated walk to and from a bus stop, during this portion of the assessment, and at the end of this part of the process. Recording vital signs before the walk to a bus stop will provide baseline information about pulse rate, blood pressure, and respirations. Making a second set of recordings (at a designated point along the "trip") will give the assessor information about the effects of this portion of the assessment on the applicant. Together with visual observations about any signs of distress, these recordings will allow the assessor to determine if it is reasonable to ask the applicant to continue the simulated trip to and from a bus stop. Recording vital signs after the trip has been completed will provide additional information (along with visual observations) to help the assessor determine the maximum distances that the applicant can reasonably be expected to travel.

Some systems that record vital signs before, during and after the "Distance/Endurance" portion of the assessment have set a general guideline for discontinuing this portion of the assessment. If the applicant's pulse rate increases by 30 or more beats per minute, that portion of the evaluation is ended. Assessors should also use the guidelines established by the International Hypertension Association when making these decisions. Other observations of signs of distress should also be used (see Assessing Endurance/Travel Distance section below).

If taken, blood pressure, pulse rate, and respirations would be recorded in the *Vital Signs* portion of the *Physical Functional Abilities Assessment Form*.

Equipment Needed: If vital signs are to be measured, the assessor will need a blood pressure cuff and a watch.

Considerations: Some systems that administer physical functional assessments do not include recordings of vital signs. These systems note that measuring vital signs can make the assessment appear to be a medical test (while ADA paratransit eligibility determinations should be made based on functional ability). It is also noted that adding several recordings of vital signs can increase the time needed to complete the assessment and can increase the cost of assessments. Finally, it is noted that without more detailed information about the applicant's medical history, it can be difficult to draw conclusions about true functional abilities based on these measures.

On the other hand, measurements of vital signs can give the assessor information about the effects of the assessment on the applicant, can help to ensure the applicant's safety in participating in the assessment, and can help in determining what maximum travel distances are reasonable for the applicant.

A decision to include the measurement of vital signs in the process should be discussed with the professionals who will be administering the process as well as with members of the disability community.

STEP 5 Assessing Endurance/Travel Distance

The assessor would then observe the applicant as they make a simulated trip to a bus stop/transit station in the area of the assessment center. A route in the real (out-of-doors) environment will provide for an actual simulation of travel to and from a stop/station and would be used whenever practicable. A predetermined route would be identified that allows the assessor to observe the applicant traveling at least 2,640 feet (1/2 mile). Ideally, the route would also include street-crossings of various types, curbs, curb-cuts, a variety of surfaces, and varying slopes. If these features are not along the designated route, they will need to be measured in another location.

Travel in the real, out-of-doors environment might not, however, always be practical or advisable. The assessor should consider the disabilities or health conditions of the applicant. Caution and professional judgment is advised to avoid introducing applicants to weather conditions or environments that might pose a risk. In some areas of the country, certain occasional weather conditions might also make outdoor travel unreasonable for any applicant. Alternate, indoor facilities might need to be available to measure endurance and travel distance in these cases.

Figure 5-2. Testing Endurance/Travel Distance in the Real Environment



Figure 5-3. An Indoor Walk at the Assessment Center in Dallas



The assessor would direct the applicant to landmarks along the route. The assessor would not, however, lead the applicant along the route, but would instead let the applicant set the pace while still being in a position to assist as needed. The applicant's ability to follow directions to each upcoming landmark would be observed and recorded. The applicant's gait would be observed as they travel along the route and this information should be recorded on page 3 of the *Physical Functional Abilities Assessment Form*.

As noted in the "Overview of the Process" at the beginning of this workbook, the eligibility of applicants who only indicate a vision disability will be determined using information provided in the application form and from professionals familiar with the applicants travel abilities. Some applicants with low vision as well as physical disabilities may be asked, however, to participate in this part of the assessment. In these cases, the assessor would make observations about the applicant's ability to identify landmarks, skill in using mobility aids (cane, service animals), and ability to follow the described path of travel. Ideally, the route would also include large and small obstacles in the path-of-travel and the assessor would note the applicant's ability to detect and navigate around these obstacles (e.g., trees, mailboxes, fire hydrants, raised utility pipes or boxes, etc.). It is important to keep in mind, however, that these observations would not be used to draw final conclusions about eligibility. The main sources of information about functional ability for applicants with vision disabilities will be the applicants and professionals familiar

with their travel skills. Observations made as part of the physical functional assessment would be considered as additional, secondary information.

The total distance traveled by the applicant and the total amount of time required to travel this distance would be recorded. Some applicants may be able to complete the full route. For other applicants, it may not be reasonable or advisable to attempt to travel the entire route. To assist in recording travel distance and time, this section of the *Physical Functional Abilities Assessment Form* allows for observations at each 330 foot marker. Note also that this section of the form has room for a distance of less than 330 feet if the applicant is not able to make it to the first marker on the route. Other distances would be recorded as needed.

Any rests taken by the applicant would also be recorded in this section of the *Physical Functional Abilities Assessment Form*. Information about rests taken would note whether the applicant took a standing or seated rest and how long they had to rest.

The professional must be alert for signs and symptoms of distress during the assessment so that the evaluation can be discontinued when the level of competence of the individual is exceeded (or the level of effort to complete the task is no longer reasonable.) To assist in observing signs of distress, it is suggested that assessors engage applicants in conversation along the route. Signs of distress might include:

- Shortness of breath
- Changes in gait and/or balance
 - Pace becomes slower
 - Onset of limp
- Profuse sweating
- Clammy skin
- Changes in coloration
- Mental confusion
- Unable to walk and talk at the same time
- Nystagmus

Additional signs that may be reported by the applicant include:

- Report of chest pain
- Report of nausea
- Report of dizziness
- Report of pain in limbs

While making observations of the applicant completing the route, it is also important to consider consistency of performance and symptom validity in order to distinguish between true signs of distress and exaggeration or faking of symptoms.

To be considered able to travel certain distances, applicants must not only be able to actually negotiate that distance, but must be able to travel the distance with reasonable effort and in a reasonable period of time. The suggested guideline for travel time is that applicants must be able to complete 1,320 feet (1/4 mile) in 16 minutes or less and must be able to complete 2,640 feet

(1/2 mile) in 32 minutes or less. These are not absolute measures, but should be considered as general guidelines along with observations of effort required and signs of distress.

After observing the applicant traveling along the route, observing level of effort and signs of distress, and noting the time required to travel certain distances, the assessor would record on the *Physical Functional Abilities Assessment Form* what they feel should be the maximum distance that the applicant should be expected to travel to and from transit stops/stations.

Equipment/Props Needed: As noted above, a defined route would be established that is at least 2,640 feet (1/2 mile) long. This should include a 1/4 mile walk to a real or mock bus stop, and a 1/4 mile return. Markers should be identified every 330 feet along the route (at which travel times should be recorded). The route would also include at least one location where the applicant can sit down and rest if this becomes necessary. Ideally, the route would include crossing intersections with and without traffic controls, should include curbs and curb cuts along the way, should have varying slopes (from mild to moderate) and would include different types of uneven surfaces. If these features are not included along the route, they will need to be simulated at the assessment center.

For days when inclement weather prevents outdoor travel, an alternate route inside the assessment center will be needed. This could include traveling hallways or open spaces within the building and then using simulated curb-cuts, curbs, slopes and surfaces at the center.

The assessor will also need a watch to record the time needed to travel each 330 foot segment of the route.

STEP 6 Assessing Ability to Navigate Curbs and Curb-Cuts

The applicant's ability to negotiate curbs and curb-cuts, without assistance, would be assessed. Ability to step up and down 6" curbs would be observed. Ability to travel up and down an ADA-compliant curb-cut (see description below) would also be observed.

If the applicant has a vision disability, the assessor would also observe whether the applicant is able to independently locate the curb and curb-cut. The assessor would provide the applicant with general directions about the path of travel being followed ("We will be going to the end of this block and then crossing straight across the street") and enough additional cues to ensure the safety of the individual. The assessor would then observe whether the applicant is able to independently locate as well as navigate the feature. Again, observations of visual abilities made as part of the physical functional assessment would be considered together with primary sources of information (from the applicant and from professionals familiar with the applicant's travel abilities) in making an eligibility recommendation.

Ideally, the route selected for travel to and from a transit stop/station in Step 5 would have a curb and curb-cut in the first portion of the route and a curb and curb-cut close to the end of the route. At one location, the applicant would be observed stepping down from the sidewalk to the street and at the other location the applicant would be observed stepping up from the street onto a 6" curb. Similarly, two separate curb-cuts would be identified along the route that would require applicants to travel up one and down the other. Making these observations close to the beginning and at the end of the route will provide information on ability to navigate these

features after some exertion. If the route doubles back on itself, a curb and curb-cut at the beginning of the route can then be used for both observations.

The assessor would use observations of balance, gait, and skill in using mobility aids made earlier in the assessment to determine if it is reasonable to ask the applicant to negotiate curbs and curb-cuts. The assessor would also remain in close proximity to the applicant and be prepared to provide assistance if the applicant should lose balance, lose control of his or her mobility aid, or not have the strength to complete this task. When observing an applicant negotiating a curb-cut, the assessor would be positioned behind the applicant when going up the curb-cut and in front of the applicant when going down the curb-cut. The final determination of ability would be based, however, on the applicant's ability to independently and safely negotiate these features.

Figure 5-4. Testing Ability to Negotiate a Curb



Consideration: It is recommended that a standard 6” curb be used for this observation. However, if curbs in the area are typically higher than this, consideration should be given to using curbs that represent local conditions.

Equipment/Props Needed: A 6” curb or curbs will need to be identified along the route. A simulated 6” curb should also be built within the assessment center for use when outside travel is not possible. The curb should not have handrails or other assists.

An ADA-compliant curb-ramp or ramps should also be identified along the route and a mock ramp should be built at the assessment center for use during inclement weather. To be ADA-compliant, the ramp should have:

- A stable, firm and slip-resistant surface (ADAAG 4.5.1);
- A maximum slope of 1:12 (ADAAG 4.8.2);
- Flared sides, if required to accommodate perpendicular path-of-travel, with a maximum slope of 1:10 (ADAAG 4.7.5); and
- A surface that allows the ramp to be detectable (ADAAG 4.29.2).

While curb-cuts are to have the least possible slope, it is suggested that a curb-cut with a slope of 1:12 be used if possible to simulate most typical designs.

STEP 7 Assessing Ability to Navigate Slopes and Various Surfaces

Ability to navigate on various types of surfaces and various slopes would be observed. As many of the following types of surfaces as possible would be used:

- Broken pavement (irregular changes in level of at least $\frac{1}{4}$ to $\frac{1}{2}$ inch);
- Uneven and or grassy surfaces;
- Gravel surfaces; and
- Loose dirt or sand surfaces.

Again, these different types of surfaces would ideally be identified along the outdoor travel route suggested above. If this is not possible, they should be simulated at the assessment center. Even if on the outdoor route, it is suggested that they be built at the assessment center for use during inclement weather.

The professional conducting the assessment should again use observations of balance, gait, and skill in using mobility aids to determine if it is appropriate to ask the applicant to perform these tasks. The assessor should also be in a position to assist if needed, but should make final observations based on the applicant's independent ability to navigate each surface.

The assessment center (and ideally the outdoor route) would also include ramps or gradients with a variety of slopes. It is recommended that the assessment center have ramps with three different slopes (slight, moderate, and steep). The suggested slopes and minimum distances are:

- A slight slope of 1:16 for a distance of at least 30 feet;
- A moderate slope of 1:12 for a distance of at least 30 feet; and
- A steep slope of 1:8 for a distance of at least 16 feet is recommended.

These three slopes are intended to simulate various slopes on paths-of-travel in the natural environment.

For safety reasons, it is suggested that ramps built at the assessment center have handrails. However, applicants would be requested to walk up and down these ramps without using handrails in order to simulate travel over various terrains in the natural environment.

Finally, a part of the outdoor path-of-travel with a 5% cross-slope (1:20) would be identified and a similar cross-slope would be simulated at the assessment center (for use in inclement weather and if such a slope cannot be identified on the outdoor route). The applicant's ability to travel across this cross-slope, without veering off to the downhill side of the path would be observed. Ideally, the applicant would be asked to travel in both directions across this cross-slope to determine if they have adequate strength and balance to counteract the slope in both directions.

Equipment/Props Needed: A series of ramps with the slopes and lengths specified above at the assessment center. Ramps and changes in slope along the outdoor route should also be identified to the extent possible. If ramps and slopes are identified along the outdoor route, they should be carefully measured and the information about these features should be added to the *Physical Functional Abilities Assessment Form* to reflect the specific slopes and distances observed.

STEP 8 Assessing Street Crossing Abilities

The applicant's ability to safely cross streets is determined in this portion of the assessment. Two different types of street crossings are suggested – one which is light controlled and one with a crosswalk but no traffic or pedestrian light. It is also suggested that at least one of the observations involve crossing at least four lanes of traffic.

Figure 5-5. Testing Street Crossing Ability at Uncontrolled Intersection in Seattle



To the maximum extent possible, it is suggested that street crossing abilities be observed in the real environment rather than in a controlled, simulated setting. The distractions and pressures of dealing with real-life traffic situations are difficult to simulate at an assessment center.

The assessor should first enter information about the street crossings observed in the appropriate places on the *Physical Functional Abilities Assessment Form*. This includes noting information about the number of lanes crossed, whether there was a crosswalk, the types of traffic and pedestrian controls present, and the exact width of the street in feet.

For applicants with physical disabilities, a key observation in this step is whether or not they are able to travel at a sufficient pace to be safe when crossing each street. Record the amount of time needed to cross each street, the width of each street in feet, and then calculate the applicant's walking speed. A walking speed of at least 3-4 feet per second is suggested as a general guideline for safe street crossings.

Other observations would also be made. The assessor would determine if the applicant is able to locate the safe and appropriate place to cross the street. If a pedestrian activated crossing light is available, the assessor would note if the person uses it. If an automatic pedestrian walk light is present, the assessor would note if the applicant waits and initiates the crossing at the appropriate time. If no controls are present, the assessor would note whether the person uses safe street crossing skills in checking for oncoming traffic and crossing only when it is safe.

Particular attention would be given to the person's general level of comfort with crossing the street. Note if they become confused, disoriented, or overly agitated or nervous. Note if their gait changes as they cross the street or if there are signs of distress that would indicate they do not feel confident and in control of their environment.

If an indoor assessment becomes necessary, the assessment center would include a simulated street and traffic controls. This might include a traffic signal and pedestrian walk light with activation button and lights. An effort would be made to simulate conditions that might require particular focus and an accelerated pace. This might include a taped recording of traffic and other street noise. Observations would then be made of their use of the pedestrian activated walk button, recognition of the correct signal and time to cross, and walking speed as they cross the "street."

Equipment/Props Needed: Identify at least two street crossings on the outdoor travel route. Measure the exact width of each crossing. For back-up use, build a mock four-way intersection with traffic controls and pedestrian walk lights at the assessment center. Street edges, lanes, and crosswalks would be appropriately marked on the floor.

STEP 9 Assessing Ability to Wait for a Fixed Route Vehicle

The applicant's ability to wait at a bus stop or rail station for a vehicle to arrive would be determined. It is suggested that the applicant's ability to wait unassisted for at least 10 minutes be assessed.

Note that individuals do not need to be able to stand in a static position for this length of time. Typically, people will pace back-and-forth, or shift their weight periodically, while waiting for an extended period of time. It is important to determine, though, if the applicant is able to wait in a set location that may not have a bench or place to sit for at least 10 minutes without losing their balance or becoming unreasonably stressed.

If the assessment includes use of the Tinetti Balance Test (which is optional), observations from that standardized test could be used to help make this determination. Observations of strength and endurance made during other parts of the assessment (traveling a set route, crossing a street) will also be helpful in making this determination.

It is also suggested that, at some point in the assessment, the assessor engage the applicant in conversation for a few minutes (a minimum of two minutes is recommended) and observe if the person is able to stand comfortably for this extended period. This might be done at the beginning of the assessment when “General Information” and “Background Information” questions are being asked. It might also be done at some point along the route to and from a bus stop where the assessor might ask additional questions about travel issues or current methods of travel.

The assessor would look for signs of distress (see “Assessing Endurance/Travel Distance” section above) while the applicant is waiting. This could include visual observations of physical distress or statements by the applicant that they need to sit down and rest.

Using the various points of information noted above, the assessor would then indicate on the form whether the applicant can be reasonably expected to wait for at least 10 minutes at a bus stop or rail station that does not have a bench or place to sit.

Equipment/Props Needed: None.

STEP 10 Assessing Ability to Navigate Flights of Stairs (If Applicable)

If the transit system includes older rail stations that are not yet accessible and which require passengers to navigate flights of stairs to get to and from platforms, it will be necessary to consider applicants’ abilities to climb and descend flights of stairs. Start by surveying transit stations to determine how stairs are typically configured. Determine:

- How many stairs might riders be required to negotiate?
- What is the height and depth of stairs?
- Do the stairs typically have “nosings” (step tread overhangs)? How much of a nosing is typical?
- How are handrails configured?

This information should then be considered when making a determination of abilities to navigate stairs.

This determination might be made based on observations from other parts of the assessment. This might include observations of abilities to climb and descend bus steps (STEP 12), stepping up and down a curb (STEP 6), and general endurance/travel distance observations (STEP 5).

Alternately, applicants might be asked to both climb and descend stairs available at the assessment center or on the outdoor route. As with other portions of the assessment that require significant exertion, the assessor would first determine, from prior observations of the applicant, whether it is reasonable to ask the applicant to perform this task. During the observation, the assessor would be positioned behind the applicant when climbing the stairs and in front of the applicant when descending stairs so that appropriate assistance can be provided if needed.

As the applicant is climbing and descending the stairs, the assessor would watch for signs of distress and would observe how much effort is required. Particular attention would be given to whether the applicant appears to be in control as they perform these tasks or if there appear to be risks due to lack of strength, balance, or other factors. The assessor would also record how long it took for the applicant to climb and descend the stairs. Observations of effort and time would then be used to determine if it is reasonable to expect the applicant to climb stairs to get into and out of transit stations. The assessor would record in this portion of the *Physical Functional Abilities Assessment Form* whether the applicant was able to reasonably complete these tasks; if they were able to climb and descend the stairs but, due to the level of effort, risk factors, or time required they should not be expected to do this to use the system; or if they were unable to complete these tasks.

Equipment/Props Needed: If available, a flight of stairs at the assessment center or on the outdoor route would be identified. The stairs would replicate real-life transit station stairs to the greatest extent possible. Ideally, the assessment center would be located within a short walk of a transit station with stairs and applicants would be asked to walk to, enter and exit this station as part of the assessment. Even if this is possible, though, props at the assessment center will be needed for times when outdoor travel is not appropriate. In these cases, a flight of stairs at the assessment center may need to be used.

A watch will also be needed to record the time required by the applicant to climb and descend the stairs.

STEP 11 Assessing Ability to Use Elevators (If Applicable)

In transit systems with rail stations that include elevators, it is also suggested that the assessment consider applicants' abilities to use elevators.

The primary skills considered would be:

- Spatial orientation in a complex transit setting;
- Coordination and range of motion (to be able to activate the elevator controls and operate the elevator); and
- Ability to maneuver a mobility aid in a tight space (e.g., backing onto the elevator or turning to be able to activate the controls inside the elevator cab.

Observations of these skills might be made in other parts of the assessment. Alternately, applicants might be observed entering, using and exiting an elevator if one exists at the assessment center. The assessor would observe whether the applicant is able to use the elevator

controls both outside and then inside the elevator. This will require a certain range of motion and might require backing onto the elevator to be able to activate controls inside the elevator cab.

Equipment/Props Needed: An elevator at the assessment center (if available).

STEP 12 Assessing Ability to Navigate Bus Steps

If any of the fixed route buses used by the transit agency is not accessible (equipped with a lift or a ramp), it will be necessary to determine if applicants are able to negotiate bus steps. If all fixed route vehicles in the system are accessible, this portion of the assessment does not need to be included. **Note:** If all buses are accessible and this portion of the assessment is not used, it is recommended that the assessor inform applicants, including applicants who do not use wheelchairs, that they can request to ride up on the lift if they are not able to use the stairs.

Ideally, a retired bus can be parked in or just outside the assessment center and this observation can be made using this vehicle. In some programs, the front stepwell of a retired bus, or “half a bus” (including the front entrance the lift and the securement area) have been located within the assessment center. In other systems, a mock-up of a bus, including the front entrance, have been built. If a mock-up is built, it is important that the step heights, widths, and depth be duplicated exactly. Also, the entrance area should include hand-rails and grab-bars similar to those on actual buses.

Observations of strength and balance from earlier assessment tasks would be used to determine if it is appropriate to request that the applicant demonstrate their abilities to use bus steps. If the applicant is unable to negotiate curbs, does not appear to have the lower and upper-body strength to climb high steps, or scores low on the optional Tinetti Balance Test, this portion of the assessment may not be appropriate and a determination that the applicant will need buses with lifts might be made. The assessor should also pay particular attention to how the applicant manages the first (highest) step, and should discontinue the test if the applicant shows problems with this initial task.

Applicants would first be observed negotiating the bus steps from street level. If they are able to negotiate the 12-14” first step, it can be assumed that they would also be negotiate the steps from a 6” curb. If they are not able to negotiate the first step from street level, the assessor would then observe ability to use the steps from a 6” curb. This could be done using a platform to simulate a curb.

Separate observations would be made of the applicant’s ability to climb up the steps as well as descend the steps. The assessor would carefully observe the level of effort that is required and any signs of distress. Particular attention would be given to balance or strength issues that might put the applicant at risk of falling. Consideration should also be given to the applicant’s ability to manage this task in various types of weather (e.g., stepping down onto a snow-covered, wet, or slippery street).

The assessor should be in a position at the bottom of the stepwell where assistance can be provided if needed.

The assessor would determine whether it is reasonable to expect the applicant to use the steps to enter buses. This determination would consider not only the ability to complete the task, but the level of effort required and potential risks and safety considerations. The assessor would then indicate in this section of the *Physical Functional Abilities Assessment Form* whether the applicant can be expected to use the steps, if they were able to climb and descend the steps but use of the steps is not recommended, or if they were unable to perform this task.

Equipment/Props Needed: Actual or mock-up of bus entrance stepwell. If a mock-up is made, it should be built to actual bus dimensions and should have the same handrails and grab-bars that are provided on buses.

Consideration: If buses are equipped with kneelers, separate observations of ability to use the steps of a bus with the bus “Kneel” and at full step height might also be considered. It is also possible that when “kneel” the first step height would be similar to using the steps from a 6” curb, in which case the kneeler feature could be used to simulate boarding and exiting from a curb.

Figure 5-6. Mock-Up of Bus Stepwell Used at Assessment Center in Seattle



STEP 13 Assessing Ability to Use Bus Lifts

Applicants who use wheelchairs or who are otherwise unable to use the bus steps would be assessed for their ability to use bus lifts. The assessor would note in this section of the *Physical Functional Abilities Assessment Form* whether the applicant used the lift with a wheelchair or as a standee.

An applicant's ability to use a bus lift independently or with reasonable assistance from a driver should be assessed. Section 37.165(f) of the USDOT's ADA regulations states that "Where necessary or upon request, the entity's personnel shall assist individuals with disabilities with the use of securement systems, ramps, and lifts. If it is necessary for the personnel to leave their seats to provide this assistance, they shall do so." Use of lifts with a reasonable level of driver assistance should therefore be considered as part of the assessment.

The assessor should first ask the applicant if they have ever used a bus lift. If they have not, the assessor should first demonstrate how the lift works and explain how it should be used. This might include how to position oneself on the platform, engaging wheelchair brakes if applicable, and using the handrails for balance.

For applicants who use wheelchairs, the assessor would observe whether they are able (with or without assistance) to maneuver onto the lift from the street and whether they are able to maneuver onto the lift from inside the bus (for deboarding).

For applicants who are ambulatory, the assessor would first determine if attempting to use the lift is safe and reasonable. If prior observations indicate a lack of the balance or strength needed to perform this task, the assessor might consider not administering this part of the assessment. If the applicant is asked to use the lift as a standee, the assessor would observe their ability to step onto the lift both from the ground and from the interior of the bus. The assessor would also observe whether the applicant appears to be able to maintain their balance and ride up and down on the lift safely. Remind individuals using the lift standing to watch their heads when entering the bus, as the bus operator would.

In order to provide assistance if needed, the assessor should remain at "street-level" while the applicant rides up and down on the lift. The assessor should not stand on the lift with the applicant.

Equipment/Props Needed: Ideally, a functioning ADA-compliant wheelchair lift should be available at the assessment center. This can be accomplished by parking a retired or spare bus at the center, by installing a portion of a retired bus within the center, or by extracting a lift from a retired vehicle and mounting it on the side of a platform to simulate entering a bus via the lift. The photos below show examples of these latter options.

A lift that meets all of the requirements of the ADAAG would be used. If a variety of different types of bus lifts exist in the fixed route fleet, the most common ADA-compliant lift in the fleet would be used or simulated.

To allow the assessor to remain at "street-level" outside the bus, it may be necessary to equip the full bus or portion of a bus installed at the assessment center with external lift controls.

As an alternative to a real bus or a working mock-up, note that some systems use a “static” lift platform to determine if applicants are able to get on and off of the lift platform. Observations of balance made in other parts of the assessment are then used to determine if the applicant can safely ride up and down on the lift.

Training: In order to be able to properly and safely conduct this portion of the assessment, the assessor should be fully trained by the transit agency to operate the wheelchair lift that is used and to assist riders in using the lift.

Figure 5-7. Assessment Center in Dallas Showing Full Bus with Functioning Lift



STEP 14 Assessing Ability to Use Low-Floor Bus Ramp

If low-floor buses are used in the transit system, it will also be necessary to assess the applicant’s ability to use a ramp to enter this type of vehicle. This observation should be made both for applicants who use wheelchairs as well as for applicants who are ambulatory but who are determined unable to step up onto the bus.

Again, in keeping with Section 37.165(f) of the USDOT’s ADA regulations, an applicant’s ability to use a low-floor bus ramp independently or with reasonable driver assistance should be considered.

This observation can be made using a spare low-floor bus or a mock-up of the entrance and ramp of a low-floor bus. In designing this part of the assessment, the ability to make observations of applicants entering from street level as well as from a 6” curb should be considered. Also, if it is standard practice to activate the vehicle “kneeler” when using the ramp (to lessen the ramp slope), this should be considered in the design of any mock-ups or in the use of an actual bus.

Observations would be made of applicants using the ramp to enter the vehicle both from a 6” curb as well as from street-level (with the kneeler activated if this is common practice). Both of these conditions should be considered since it is likely that there will be some stops without sidewalks and curbs and that there may be times when buses will not be able to pull to the curb.

Figure 5-8. Low-Floor Bus Ramp Deployed to Street Level



Using prior observations, the assessor would first determine if it is reasonable to ask the applicant to attempt to use the ramp. Particular attention should be given to whether the applicant is able to use the ramp when it is deployed to street-level (even with assistance).⁶

If the applicant has never used a ramp-equipped low-floor bus, the assessor would provide instructions for the safe use of the ramp. The assessor would record in this section of the

⁶ The slope of a typical low-floor bus ramp when deployed to a 6” curb is moderate (perhaps 1:6). The slope of a ramp when deployed to street level is more severe (typically 1:4) and it may not be safe for some applicants to attempt to use a ramp of this slope even with assistance.

Physical Functional Abilities Assessment Form whether the applicant is able to negotiate both up and down the ramp and whether the applicant is able to do this independently or with assistance.

If prior observations of the applicant's abilities indicate that they should not attempt to use the ramp independently, the assessor would provide the assistance that would be provided by a bus operator. If it is determined that the applicant requires assistance using the ramp, the assessor would inform applicants that this assistance can be requested when using the system.

Equipment/Props Needed: If practical, a spare low-floor bus (or the front portion of a bus) can be located at the assessment center. It would be sufficient, though, to build a mock-up of the ramp and entrance. If a mock-up is used, it is suggested that a spare ramp be used in the construction in order to replicate the exact dimensions and surface of actual ramps in service. The mock-up would also include a front entrance door with the same handrails, farebox set-up, and wheelwell configuration that is present on low-floor buses. As noted above, the set-up would allow for the ramp to be deployed at street level as well as to a 6" curb. This can be done by having one ramp area (i.e., the ramp deployed to a 6" curb) with the full front entrance mock-up, and then a second ramp test area that simply is a ramp with the slope that would simulate deployment at street level with handrails and a bus floor landing area. The complete bus front mock-up would be used to assess ability to navigate onto the bus and the separate ramp area would simply assess ability to navigate a steeper ramp.

Training Considerations: In order to be able to properly and safely conduct this portion of the assessment, the assessor would be fully trained by the transit agency to operate the wheelchair ramp that is used and to assist riders in using the ramp.

STEP 15 Assessing Ability to Pay Fixed Route Fares (If Applicable)

When designing an appropriate assessment process, consideration would be given to the various methods available for paying required fares and to the physical skills that might be required to perform this task. For example, it might be possible to easily obtain tickets that can be used in lieu of change or bills. Consideration would also be given to transit system policy regarding operator assistance with fare payment. For example, in some rail systems, station attendants might be available at all stations to provide assistance with the purchase and payment of fares. In other systems, however, staff might not be available to assist with these required tasks. Also, in some systems, bus operators might be required to assist passengers with fare payment as long as this does not require them to go into a person's purse, wallet, or backpack. For example, it may be possible for riders with disabilities to attach an envelope with the correct fare to their mobility device or to their clothing and request the bus operator to deposit the fare for them.⁷

If alternate fare media are available or types of operators/staff assistance are such that it is determined that riders with disabilities should always be able to pay the fare, an assessment of abilities to pay fares will not be needed. If, however, policies and media do not address certain rider limitations, an assessment that simulates problems that riders with disabilities might

⁷ Guidance issued by the Federal Transit Administration indicates that transit systems should set policies that provide reasonable assistance with fare payment. Modification of policies and procedures to provide "program accessibility" is required by Sections 35.149-35.150 of 28 CFR Part 35 (Department of Justice regulations implementing Title II of the ADA).

encounter might be needed. For example, riders might be required to locate and use fare payment or validation machines at transit stations where attendants are not available. *The specific situation of the transit system regarding fare payment issues should be discussed with consumers as part of the design of the local assessment process.*

If ability to pay fares is considered, the assessment center can be equipped with a real or mock farebox and the applicant can be asked to deposit the correct fare in the box. Or, if automated fare equipment is used at rail stations that are not staffed, similar equipment can be located at the assessment center and the applicant can be asked to select the appropriate amount needed for a mock trip and use the equipment to obtain the required ticket (and then validate and/or feed the ticket into entrance/exit gates as needed).

Equipment/Props Needed: Actual equipment or mock-ups of fare acquisition and payment equipment as appropriate to the local system.

STEP 16 Assessing Ability to Get to and from Seats and Securement Areas

A determination would be made as part of the physical functional assessment of applicants' abilities to get to and from seats or securement areas once on buses or trains. For applicants who do not use wheelchairs, this will involve determining if they are able to negotiate down an aisle to available seating and sit and stand using handrails/stanchions that are typically available. For applicants who use wheelchairs, this will involve observing whether they are able to maneuver and control their wheelchairs sufficiently to properly locate themselves in a securement area (to allow for proper securement by operators).

The most thorough way to make this assessment is to have a spare/retired bus on site and to observe the applicant navigating on-board this bus. In lieu of a full bus, a mock-up of a bus interior can be built at the assessment center. This can be done by having a "half-bus," with the portion including the lift and ambulatory entrance and the pathway to the securement area and first few rows of seats, assembled at the assessment center. Or, careful measurements of a bus interior and layout can be made and a mock-up of a bus interior can be constructed (see figures below).

It is also possible (although not as thorough) to make a determination of abilities to maneuver on-board a bus by using observations of other tasks performed as part of the assessment. For example, the ability to sit and then stand from a seated position might be made as part of the optional Tinetti Balance Test (see below) using simple props. Also, ability to maneuver a wheelchair in tight spaces might be generally observed throughout the assessment as the applicant is asked to navigate up and down curb-cuts or along an inside or outdoor route.

If low-floor buses are used in the system, it will be important to simulate the interiors of these buses. The stepwell configurations in these types of buses can limit the space available to maneuver a wheelchair from the ramp entrance to the securement area.

The assessor would determine during the observation whether the applicant has used fixed route buses with their current mobility aids. This information will be important for determining if any problems maneuvering inside the vehicle are due to a lack of abilities or simply a lack of experience riding fixed route buses. If the applicant has never used fixed route service, the

assessor would provide guidance on the best way to maneuver to the securement location inside the bus.

In addition to observing basic abilities to get to and from a securement area, the assessor would record the amount of time required to perform this task. The local transit system may want to establish a general guideline for a reasonable period of time that will be allowed. Paratransit eligibility might be granted if applicants have extreme difficulty maneuvering on and off of vehicles even with instruction.

Equipment/Props Needed: Actual spare bus on-site; “half-bus” including the entrance and securement areas; or a mock-up of a bus interior including the entrance area, fare payment area, aisles to the securement location, and the securement area. A watch will also be needed to record the time required to get to and from the securement area.

Figure 5-9. Mock-Up of Bus Entrance and Interior at Assessment Center in Seattle



STEP 17 Assessing Ability to Stand on a Moving Vehicle (If Applicable)

The assessment process would consider that fixed route riders might be required to stand on a moving vehicle. ADA regulations require that bus operators request that passengers seated in priority seating areas make the seats available to persons with disabilities who ask to use those seats. However, the regulations do not require bus operators to make passengers relinquish these seats. Local transit systems can, however, establish policies that exceed the minimum regulatory requirements to ensure that riders with disabilities who request a seat are accommodated before

the bus moves. For example, bus operators might be required to ask passengers in other areas to offer their seat if passengers in the priority seating area are not responsive. And, if in the unlikely event that no seat is made available, operators might be instructed to not move the vehicle with a person who has indicated that they need a seat to safely ride the bus.

If local policies and procedures are such that all riders who need a seat will be accommodated, this portion of the assessment might be omitted. ***This issue should be discussed with consumers as part of the final design of the assessment process.***

If it is not possible to ensure that all riders who require seats to safely use the system will receive them in actual operation, a determination of the ability to stand on a moving vehicle would be made by the assessor. Since it might be impractical to include a real trip on a bus as part of the assessment, this determination could be made based on the following:

- General observations of strength and balance made in other portions of the assessment; or
- Results of the optional Tinetti Balance and Gait Tests.

Equipment/Props Needed: See description of set-up for Tinetti Balance and Gait Test at the end of this section.

STEP 18 Assessing Ability to Signal for Destination (If Applicable)

The assessment would consider whether applicants will be able to signal bus operators that they would like to disembark at an upcoming stop. This would include assessing whether the applicant is able to pull the signal cord or press the signal strip (depending upon what is provided on local vehicles).

In designing the assessment process, consideration might also be given to policies and procedures that exist to assist riders in signaling or indicating a desire to disembark. This might include providing the bus operator with a “destination card” or otherwise indicating a desired departure point when boarding the vehicle. If it is felt that policies and procedures are such that all persons should be able to be accommodated, this portion of the assessment might be omitted. If, however, it is determined that some individuals with disabilities may not be able to indicate when they need to disembark, this task would be assessed. ***The need to include this portion of the assessment should be discussed with a consumer advisory committee or with local consumers through another appropriate forum.***

If a full bus or a portion of a bus is available at the assessment center, the performance of this task can be observed using equipment on-board. If a mock-up of a bus interior is used, the stop signaling equipment can be included to allow for this observation. Or, the assessor might simply observe general upper-body range of motion and strength and make a determination of ability to perform this task. If this latter approach is used, it is important that the assessor have a thorough understanding of the location of stop signaling systems and the range of motion and strength needed to activate the system.

Equipment/Props Needed: Actual or mock-up of stop signaling system.

Recommended Core Competencies for Persons Conducting Physical Functional Assessments for ADA Paratransit Eligibility

Introduction

This section provides information regarding the core competencies required by personnel who conduct physical functional assessments as part of an ADA eligibility determination process. To ensure that fair and accurate determinations are made, it is important that 1) a comprehensive assessment process that is representative of conditions that prevail in the jurisdiction be developed and followed consistently, and 2) that skilled and appropriately trained personnel conduct the evaluations in a manner that will produce valid (accurate) and reliable (repeatable or representative) results.

Conducting the eligibility determinations according to the designed protocol is a routine procedure for the evaluator once the series of assessment tasks is learned. The difficulty in conducting valid evaluations lies in the ability of the evaluator to interpret a wide range of behaviors and performance skills, and to respond to unexpected circumstances. The judgment required to discern between genuine inability and apparent inability that arises from other sources (fear, uncertainty, poor comprehension, secondary gain, etc.) is gained through formal education, job-specific training, and clinical experience with a wide range of disabilities.

Evaluators should possess background training and education that support the competencies listed in the next section. Examples of the types of professionals who *typically* possess the background knowledge to perform functional assessments of this type are:

- occupational therapists
- physical therapists
- clinical kinesiologists
- exercise physiologists who have worked with disabled or injured populations.

Other professionals who *may possess* related knowledge are:

- nurses who have worked in rehabilitation or occupational health settings
- recreation therapists who have received training in functional assessment
- athletic trainers who have worked with disabled populations.

Transit authorities may also identify persons on an individual basis who by virtue of work experience and training possess skills relevant to functional physical assessment. Prior experience in observation and evaluation of *functional aspects* of disability is a necessary prerequisite for one to acquire the clinical reasoning skills needed to make skilled interpretations of performance. All evaluators will require training and initial supervision in order to perform this specialized type of functional assessment.

Transit authorities should also be aware of licensing regulations in the state in question when assigning professionals to conduct evaluations. For example, in most states, occupational and physical therapy assistants are not licensed to independently perform and document evaluations,

and thus would be unable to perform evaluations under their professional title without violating the jurisdiction's practice act.

Core Competencies

The following list of competencies will serve as a guide for those who are selecting personnel to conduct physical functional assessments. Listed with each competency is the critical performance level necessary for competent performance relative to this type of assessment, as well as examples of where the competency would be used during the assessment process.

Competency	Criterion/Performance Requirements	Relevant Areas of Functional Assessment
Provide information and instructions to the applicant	<ul style="list-style-type: none"> - Effectively describe evaluation requirements - Effectively interpret the meaning and intention behind applicant questions and statements - Modify instructions appropriately to match the learning style and cognitive level of the applicant. - Rephrase and repeat information to ensure applicant has correctly interpreted instructions when unexpected response results - Effectively instruct applicant to ensure safe and efficient performance. 	<ul style="list-style-type: none"> - Orientation of applicant to purpose of evaluation - Introduction and explanation of evaluation tasks - Providing guidance and encouragement to applicant during evaluation.
Receive and interpret information from the applicant	<ul style="list-style-type: none"> - Obtain complete information from the applicant - Respond appropriately and effectively to applicant questions, concerns or task performance refusals 	<ul style="list-style-type: none"> - Soliciting information relevant to an understanding of applicant functional performance and medical restrictions prior to assessment - Interacting with applicant before and during the assessment.
Communicate verbally with other professionals	<ul style="list-style-type: none"> - Request relevant information central to understanding applicant limitations and abilities from community health professionals - Accurately interpret the meaning and relevance of information received from collateral sources - Verbally provide a clear analysis of performance issues and limitations to transit authority decision makers 	<ul style="list-style-type: none"> - Placing calls to outside professionals for collateral information prior to or following an assessment. - Discussing the results of evaluation or concerns with eligibility determination makers - Presenting results of assessment before an appeal board.

Communicate in writing with other professionals	<ul style="list-style-type: none"> - Accurately interpret the meaning and relevance of written reports received from collateral sources - Provide clear and defensible written summary of applicant performance 	<ul style="list-style-type: none"> - Assisting transit authority personnel in interpreting supporting information from collateral sources - Producing written summary of assessment results
Develop interpersonal rapport	<ul style="list-style-type: none"> - Create a positive environment conducive to eliciting valid performance - Build an environment of mutual respect - Encourage appropriate applicant sharing of relevant information to assist in interpretation of observed performance 	<ul style="list-style-type: none"> - Greeting the applicant and explaining one's role and background as evaluator - Throughout the functional assessment
Observe and evaluate applicant performance	<ul style="list-style-type: none"> - Make accurate observations of performance through visual observation, measurement, and calculations - Correctly interpret physiological response to testing through observation of overt signs (e.g. rate of breathing, changes in gait pattern, skin color, etc.) and formal testing methods (e.g. blood pressure test, pulse rate, etc.) 	<ul style="list-style-type: none"> - Determining level of effort expended by the applicant in performing required tasks - Evaluating applicant performance ability throughout physical assessment, including rate and quality of performance, changes in rate and quality of performance - Performing assessments of physiological response to testing if included in test protocol
Supervise performance for applicant safety	<ul style="list-style-type: none"> - Be aware of risks and appropriate precautions associated with a disability or medical condition. - Accurately determine situational risk factors based on observed quality of performance in areas such as static balance, dynamic stability, proximal and distal stabilization, correct response to commands, speed of response to environmental barriers and cues, etc. - Use clinical judgment to make determination as to level of risk. - Intervene in an appropriate manner to terminate a section of the evaluation when the applicant is determined to be unsafe. 	<ul style="list-style-type: none"> - Observing applicant performance on test items, especially negotiating ramps, climbing steps and curbs, ambulation over rough ground, navigating power wheelchair over course and on lift, ramps, and cross slopes, completing street crossings, etc.

<p>Record assessment findings and impressions during functional assessment</p>	<ul style="list-style-type: none"> - Accurately record performance as it occurs - Accurately record behavioral observations - Interpret and accurately record information shared by applicant as to “typical” performance and personal disability anomalies 	<ul style="list-style-type: none"> - Measurement (i.e. with stop watch) and recording of street crossing speed, time required to complete distance course, number of rest breaks, frequency of rest breaks, and heart rate (if included in test). - Concurrent recording of information provided while walking with the applicant, and during other aspects of the evaluation. - Notetaking during testing to record behavioral signs, variations in performance, etc.
<p>Interpret and extrapolate from observed performance</p>	<ul style="list-style-type: none"> - Accurately compare observed performance with acceptable and safe levels of performance (based on past experience and normative or criterion data. - Use clinical judgment to evaluate quality of response - Use clinical judgment to determine potential areas of concern based on level of observed performance 	<ul style="list-style-type: none"> - Evaluation of balance skills in a standardized screening test. - Comparison of measured walking rate with transit authority standards. - Evaluation of dynamic balance in functional test on short ramps and cross slopes, distance test, 6” curbs, etc. and predicting potential performance in a wider range of community situations (e.g. longer distances, steeper slopes, higher curbs)
<p>Demonstrate professionalism</p>	<ul style="list-style-type: none"> - Treat applicants with respect. - Effectively manage conflict without defensiveness. - Maintain confidentiality of applicant information. - Ensure the accuracy and fairness of assessment and reporting in the face of potentially conflicting applicant and transit authority interests. 	<ul style="list-style-type: none"> - Greeting and orienting the applicant to the assessment - Discussing cases with eligibility determination personnel - Presenting results accurately and objectively in an appeal hearing

Manage time and situational demands	<ul style="list-style-type: none"> - Effectively manage time and responsibilities to minimize applicant wait time. - Effectively prioritize multiple demands. - Complete evaluations and associated paperwork in a complete yet timely manner. - Respond calmly yet effectively to emergency situations. 	<ul style="list-style-type: none"> - Managing multiple evaluations in back-logged situations, particularly when faced with “slow” performers. - Supplying reports on day of evaluation to ensure accuracy and compliance with ADA response time requirements. - Dealing with falls or other physical response crises.
Assume responsibility for personal learning and maintaining a current knowledge base	<ul style="list-style-type: none"> - Actively pursue recent information concerning medical and disabling conditions - Demonstrate the ability to effectively search for and interpret information concerning rare conditions using print and electronic sources. 	<ul style="list-style-type: none"> - Maintaining a current knowledge base as part of professional practice. - Finding information regarding risk and medical course relative to conditions that are unfamiliar or rare.

Summary

The goal of functional assessment as part of the eligibility determination process is to obtain results that represent the true and customary performance levels of an individual applicant. Use of skilled professionals to conduct these evaluations is one step towards enhancing the fairness and defensibility of determinations that are made. While all the competencies listed above are important for ensuring valid and reliable assessment results, the most critical factors are those that relate to the ability of the evaluator to solicit maximal performance, to critically analyze performance, and to recognize when to modify or terminate assessment procedures. These abilities require persons with a combination of knowledge of disability and medical disorders, appropriate training, and the clinical judgment skills that result from experience in conducting functional assessments.

Physical Functional Abilities Assessment Form

Date of Assessment: _____

Assessor: _____

Assessment Site Location: _____

Temperature and Weather Conditions: _____

General Information:

Applicant's Name: _____

Applicant's Date of Birth: _____

New Applicant

Recertification

If Recertification, current paratransit ID#: _____

Street Address: _____

City: _____ State: _____ Zipcode: _____

Male:

Female:

Background Information:

Primary Disability/Medical Condition: _____

Secondary Disabilities/Medical Conditions: _____

Dates of Onset: _____

Currently Receiving Any Treatment?: _____

Prognosis: _____

Currently Taking Medications?: _____

Medication Taken Today?: Yes No

Medication Side Effects Reported by Applicant: _____

Are Effects of Disability Variable?: Yes No

On a Scale of 1-10, How Are You Feeling Today?: _____

Temperature Sensitivity?: Yes (Heat>_____ Cold<_____)

No

Applicant's Primary Issues With Using Fixed Route Service: _____

Applicant's Name: _____
Assessor: _____ Date of Assessment: _____

Information About Mobility Aids:

Mobility Aids Reportedly Used:

- | | | |
|---|---|---|
| <input type="checkbox"/> Manual Wheelchair | <input type="checkbox"/> Power Wheelchair | <input type="checkbox"/> Scooter |
| <input type="checkbox"/> Walker <input type="checkbox"/> Braces | <input type="checkbox"/> Crutches | <input type="checkbox"/> Straight/Quad Cane |
| <input type="checkbox"/> Long White Cane | <input type="checkbox"/> Service Animal | <input type="checkbox"/> Personal Attendant |
| <input type="checkbox"/> Prosthesis/Orthotics: _____ | | |
| <input type="checkbox"/> Oxygen <input type="checkbox"/> Other: _____ | | |

Uses Mobility Aids: Full-Time Part-Time
If Part-Time, Explain: _____

Has used current mobility equipment how long? _____

Mobility Aid Use: Dependent Independent Partial Assist
If Partial Assist, Explain: _____

Mobility Aids Used for Assessment: _____

If applicant used a manual wheelchair, how did they operate it?

- | | |
|--|---|
| <input type="checkbox"/> Two hands | <input type="checkbox"/> One hand |
| <input type="checkbox"/> Wearing splints or adaptive devices | <input type="checkbox"/> Pushes with two feet |
| <input type="checkbox"/> Pushes with one foot | <input type="checkbox"/> Not applicable |
| <input type="checkbox"/> Other: _____ | |

Wheelchair/scooter dimensions GREATER than 30" wide by 48" long? Yes No
Actual Dimensions: _____ inches wide _____ inches long
Possible combined weight of more than 600 pounds? Yes No

Observations from completing General Information, Background Information, and Information About Mobility Aids sections above (applicants responsiveness, comprehension, behavior, etc.).

Observation Notes: _____

Applicant's Name: _____
 Assessor: _____ Date of Assessment: _____

Vital Signs (Optional):

	<i>Before Mobility</i>	<i>During Mobility</i>	<i>After Mobility</i>
Blood Pressure (mmHg)	_____	_____	_____
Pulse (bpm)	_____	_____	_____
Respirations (bpm)	_____	_____	_____

Distance/Endurance:

<u>Distance</u>	<u>Time</u>	<u>Rests (Duration, Stand/Sit/Position)</u>
_____ feet	_____	_____
330 feet	_____	_____
660 feet	_____	_____
990 feet	_____	_____
1320 feet	_____	_____
1650 feet	_____	_____
1980 feet	_____	_____
2310 feet	_____	_____
2640 feet	_____	_____

Observed signs of distress: _____

- Able to travel 1320 feet in 16 minutes or less? Yes No
 Able to travel 2640 feet in 32 minutes or less? Yes No

Maximum reasonable travel distance on level ground: _____

- Able to follow directions along route? Yes No
 Able to find way along route? Yes No
 Able to navigate around large obstacles (trees, fire hydrants)? Yes No
 Able to navigate around small objects (raised utility boxes/pipes)? Yes No

Observation Notes: _____

Navigating Curbs/Curb-Cuts:

At beginning of route:

- Independently locate curb/curb-cut? Yes No
 Independently step up 6" curb? Yes No
 Independently step down 6" curb? Yes No

Applicant's Name: _____
Assessor: _____ Date of Assessment: _____

- Independently maneuver up curb-cut? Yes No
- Independently maneuver down curb-cut? Yes No

At end of route:

- Independently locate curb/curb-cut? Yes No
- Independently step up 6" curb? Yes No
- Independently step down 6" curb? Yes No
- Independently maneuver up curb-cut? Yes No
- Independently maneuver down curb-cut? Yes No

Observation Notes: _____

Navigating a Variety of Surfaces/Slopes:

- Able to negotiate sidewalk that is in good condition? Yes No
- Able to negotiate on broken pavement/surfaces? Yes No
- Able to negotiate on uneven/grassy surfaces? Yes No
- Able to negotiate on gravel surfaces Yes No
- Able to negotiate on loose dirt/sand surfaces? Yes No

- Able to negotiate up 30' ramp of 1:16 slope? Yes No
- Able to negotiate down 30' ramp of 1:16 slope? Yes No
- Able to negotiate up 30' ramp of 1:12 slope? Yes No
- Able to negotiate down 30' ramp of 1:12 slope? Yes No
- Able to negotiate up 16' ramp of 1:8 slope? Yes No
- Able to negotiate down 16' ramp of 1:8 slope? Yes No
- Able to negotiate cross-slope of 1:20 (5%)? Yes No

Observation Notes: _____

Applicant's Name: _____

Assessor: _____ Date of Assessment: _____

Street Crossing:

Crossing #1:

Number of lanes? _____

Crosswalk? Yes No

Signal controlled? Traffic lights Pedestrian lights No

Able to locate crosswalk/safe place to cross? Yes No

Able to independently activate "Walk" light? Yes No NA

Safely initiated crossing from curb/curb-cut? Yes No

Crossed _____ foot street in _____ seconds (Rate of _____ feet/second)
(Minimum goal is 3-4 feet per second)

Observed signs of distress, lack of confidence, or changes in gait: _____

Crossing #2:

Number of lanes? _____

Crosswalk? Yes No

Signal controlled? Traffic lights Pedestrian lights No

Able to locate crosswalk/safe place to cross? Yes No

Able to independently activate "Walk" light? Yes No NA

Safely initiated crossing from curb/curb-cut? Yes No

Crossed _____ foot street in _____ seconds (Rate of _____ feet/second)
(Minimum goal is 3-4 feet per second)

Observed signs of distress, lack of confidence, or changes in gait: _____

Observation Notes: _____

Applicant's Name: _____
Assessor: _____ Date of Assessment: _____

Standing at a Stop:

Observations of standing balance (observe "waiting" for a period of at least two minutes during route or at other times of assessment): _____

Able to wait without a bench at bus stop for 10 minutes? Yes No Not Sure

Flights of Steps (if Applicable):

Observed? Yes No

IF YES:

Able to negotiate down _____ steps? Yes Yes, but not recommended No

Time to go down steps: _____

Able to negotiate up _____ steps? Yes Yes, but not recommended No

Time to go up steps: _____

Note rests required/signs of distress: _____

IF NO:

Based on other observations, can applicant safely negotiate flights of stairs?

Yes No Not Sure

Other Observation Notes: _____

Use of Elevators (if Applicable):

Observed? Yes No

IF YES:

Able to locate elevator? Yes No

Able to activate elevator? Yes No

Able to select desired level? Yes No

Able to enter and exit elevator? Yes No

IF NO:

Based on other observations, can applicant use elevators?

Yes No Not Sure

Observation Notes: _____

Applicant's Name: _____
Assessor: _____ Date of Assessment: _____

Navigating Bus Steps (if Applicable):

Observed? Yes No

Able to climb bus steps from street level without curb?
 Yes Yes, but not recommended No

Able to descend bus steps when bus is stopped at 6" curb?
 Yes Yes, but not recommended No

Able to climb bus steps from a 6" curb?
 Yes Yes, but not recommended No

Able to descend bus steps when bus is stopped at 6" curb?
 Yes Yes, but not recommended No

Observation Notes: _____

Navigating Bus Lift:

Assessed: Using wheelchair/scooter As standee
Able to maneuver onto lift platform? Yes, independent Yes, with assist No
Appears safe riding up and down on lift? Yes No

Observation Notes: _____

Navigating Low-Floor Bus Ramp (if Applicable):

Observed? Yes No

Able to negotiate up ramp from 6" curb? Yes, independent Yes, with assist No
Able to negotiate down ramp from 6" curb? Yes, independent Yes, with assist No
Able to negotiate up ramp from street level? Yes, independent Yes, with assist No
Able to negotiate down ramp from street level? Yes, independent Yes, with assist No

Observation Notes: _____

Applicant's Name: _____

Assessor: _____ Date of Assessment: _____

Paying Fare (if Applicable):

Observed? Yes No

Able to place fare in farebox? Yes No

Able to use fare machines? Yes No

Able to handle tickets? Yes No

Observation Notes: _____

Maneuvering to Securement Area:

Able to independently maneuver to securement area? Yes No

Time required to maneuver to securement area from lift/ramp? _____

Observation Notes: _____

Standing on a Moving Vehicle:

Able to safely stand on a moving vehicle? Yes No Not Sure

Observation Notes: _____

Signaling for Destination (if Applicable):

Observed? Yes No

Able to use stop calling system? Yes No

Observation Notes: _____

Other Observations (Response to questions; assistance needed to complete process; vision issues; behavioral issues; etc.): _____

Optional Assessment of Risk for Falling: The Tinetti Balance and Gait Test

Observations of balance and gait can be made in several parts of the assessment – particularly in STEP 5 (Assessing Endurance/Travel Distance). These might be considered sufficient to make a determination of balance and gait. As an option, systems might consider supplementing these general observations with the Tinetti Balance and Gait Test by administering this standardized test at some point in the assessment process. In particular, systems might consider using this optional assessment if inter-rater reliability and consistency of observations of balance among several different assessors is considered a potential issue.

Information from this test is typically used to determine if an individual might be at risk of falling. This information might assist in determining whether it is reasonable to ask an applicant to attempt to use ramps, board buses as a standee on a lift, climb and descend stairs, or perform other parts of the assessment. Information from this test might also be used along with other assessment observations to determine if applicants can stand and wait at a transit stop that does not have a bench/seat; step up and down curbs; stand on a moving vehicle, etc. In general, the results of this standardized test would be used to supplement observations throughout the assessment of applicants performing transit-specific tasks.

Nine items related to balance and seven items related to gait are scored as part of the Tinetti Balance and Gait Test. For each task/observation, a score of 0, 1, or 2 is given with a 0 representing the greatest level of impairment. The sixteen individual task/observation scores are then combined to form three measures: an overall balance assessment score, an overall gait assessment score, and a total balance and gait score.

Balance Test

The assessment begins with the applicant seated in a hard, armless chair. The assessor would first observe if the applicant is steady and safe when seated or if the individual leans or slides in the chair. If the applicant has steady and safe seated balance, the assessor would give a score of 1 for that observation. If the applicant leans or slides in the chair, a score of 0 would be given.

Next, the applicant would be asked to stand without using their arms to push up. A score of 2 is given if they are able to stand without using their arms to help. A score of 1 is given if they can stand, but only by using their arms to push up. A score of 0 is given if the person is unable to stand even using their arms.

A third observation is made of the number of attempts needed to be able to stand from a seated position. If the person is able to stand in one attempt, a 2 is scored. If the person requires more than one attempt, a 1 is given. A 0 is scored if the person is not able to arise.

Immediate standing balance (in the first 5 seconds after standing) is then observed. If the person is steady without using any support, a 2 is scored. If the person is steady but requires a support, a 1 is scored. If the person is unsteady (meaning they swagger, need to move their feet to stay balanced, or exhibit trunk sway) a 0 is given.

General standing balance is then scored. If the applicant has a narrow stance and stands without support, a 2 is given. If the applicant is steady but has a wide stance (heels more than 4” apart) a 1 is given. If the applicant is unsteady, a 0 is given.

With the applicant standing and with feet close together, the assessor should lightly nudge them in the sternum three times. If the applicant remains standing steady, a 2 is given. If the applicant staggers and reaches out to catch themselves, a 1 is given. A 0 is given if the applicant begins to fall.

The applicant is then asked to close their eyes while standing. If they remain steady, a 1 is scored. If they appear unsteady, a 0 is given.

The applicant would then be asked to turn in a complete circle. A 1 is given if they do this with continuous steps. A 0 is given if steps are discontinuous. Also, a 1 is given if the applicant appears steady while doing this and a 0 is given if they appear unsteady.

Finally, the applicant is asked to be seated again. If they can seat themselves in a safe, smooth motion, a 2 is given. If they must use their arms to help or do not sit in a smooth motion, a 1 is scored. If they appear unsafe (misjudge the distance or fall into the chair) a 0 is given.

Gait Test

Using any usual walking aids, the applicant would be asked to walk across a room or down a hall at a “usual” pace. They would then be asked to walk back at a “rapid, but safe” pace. Several observations are made as this is done.

Initiation of gait would first be assessed. If the person hesitates or requires multiple attempts to start, a 0 is scored. If there is no hesitancy, a 1 is given.

Four separate observations of step length and height are made. If the right swing foot does not pass the left stance foot, a 0 is given. A 1 is given if it does. If the right foot does not clear the floor completely when stepping, a 0 is given. A 1 is given if it does. The same two observations are then made regarding the left foot.

Next, step symmetry is observed. If the right and left steps are about of equal distance, a 1 is scored. If they are not, a 0 is given.

Next, step continuity is observed. If steps appear continuous, a 1 is given. If not, a 0 is scored.

Deviations from the walking path would also be observed. This observation can best be made if the floor has 12” tiles. If not, it may be helpful to mark the floor with a centerline and two lines on each side (each 12” from the centerline. Excursion of 12” over a 10-foot portion of the path would be noted. If there is marked deviation, a 0 is scored. If there is mild or moderate deviation, or if the applicant requires a walking aid to keep a straight path, a 1 is scored. If the applicant is able to walk straight without a walking aid, a 2 is given.

Trunk sway is also observed and scored as follows: 2 if there is no sway, no flexion, no use of arms to balance, and no use of walking aids; 1 if there is no sway but there is flexion of the knees or back, or spreading of the arms while walking; 0 if there is marked sway or if a walking aid must be used.

Finally, walking stance is scored. A 1 is given if the heels almost touch while walking. A 0 is given if the applicant’s walks with a wide stance (heels apart).

Scoring and Conclusions

The maximum scoring for the balance test is 16 points. The maximum score for the gait test is 12 points. Maximum score for both is therefore 28 points.

If the applicant scores below 19 points, the test says they are at high risk of falling. A score of 19-24 indicates a risk for falls.

Equipment/Props Needed: An armless chair. A walking path across a room or down a hall that is marked by 12” tiles or with special 12” markings.

Training Considerations: Assessors should be trained to safely and properly administer the Tinetti Balance Test. If assessors are required to be licensed physical or occupational therapists, they should have the training and expertise to perform this test. If other professionals are used, training might be provided by an appropriate professional. The trainee should be observed to be able to properly and safely administer the test, and the satisfactory completion of training should be documented.

Applicant's Name: _____

Assessor: _____ Date of Assessment: _____

Balance (Tinetti Balance Test): Applicant to begin test in an armless chair.

List assistive device that applicant is using today: _____

Sitting balance	0 – Leans or slides in chair 1 – Steady, safe
Arises	0 – Unable without help 1 – Able, but uses arms to help 2 – Able without using arms
Attempts to rise	0 – Unable without help 1 – Able, requires more than one attempt 2 – Able to rise, one attempt
Immediate standing balance (first 5 seconds)	0 – Unsteady (swaggers, moves feet) 1 – Steady but uses walker or other support 2 – Steady without walker or other support
Standing balance	0 – Unsteady 1 – Steady but with wide stance (heels more than 4 inches apart or use of other support) 2 – Steady without walker or other support
Nudged(with feet close together, push on sternum three times)	0 – Begins to fall 1 – Stagger, grabs, catches self 2 – Steady
Eyes closed (same position)	0 – Unsteady 1 – Steady
Turning 360 degrees	0 – Discontinuous steps 1 – Continuous 0 – Unsteady (grabs, swaggers) 1 - Steady
Sitting down	0 – Unsafe (misjudged distance; falls into chair) 1 – Uses arms or not a smooth motion 2 – Safe, smooth motion

Balance Score: _____ out of 16

Applicant's Name: _____

Assessor: _____ Date of Assessment: _____

Gait (Tinetti Gait Test): Applicant, while walking with assessor, walks across the room first at "usual" pace, then back at a "rapid but safe" pace. Uses regular walking aids.

Initiation of Gait	0 – Hesitates to start 1 – Starts smoothly
Right foot	0 – Does not pass left stance foot with step 1 – Passes left stance foot
	0 – Right foot does not clear the floor 1 – Right foot clears the floor
Left foot	0 – Does not pass right stance foot with step 1 – Passes right stance foot
	0 – Left foot does not clear the floor 1 – Left foot clears the floor
Step Symmetry	0 – Right and left steps are not of equal length 1 – Right and left steps appear equal
Step continuity	0 – Stopping or discontinuity between steps 1 – Steps appear continuous
Path (observe excursion of 1 foot over 10 foot course)	0 – Marked deviation 1 – Mild/moderate deviation 2 – Straight without error
Trunk	0 – Marked sway or uses walking aid 1 – No sway, but flexion of knees or back or spread arms when walking 2 – No sway, no flexion, no use of arms and no use of aid
Walking stance	0 – Heels apart 1 – Heels almost touching while walking

Gait Score: _____ out of possible 12

Balance Score + Gait Score: _____ out of possible 28

Risk for fall: < 19 - High Risk
 19-24 - Medium Risk
 > 24 - Low Risk

Instructions for Using CD-ROM

The CD-ROM provided at the end of this section (titled **Guidance for Conducting Physical Functional Assessments for ADA Paratransit Eligibility - CD 3**) shows key elements of a physical functional assessment. It is intended for use in training staff who will be conducting assessments. Following are instructions for playing the CD.

NOTE: In order to watch CD 3, your computer must have any of the following versions of Windows: '98, NT4, 2000 or XP. You must have at least 32MB RAM, 4x CD-ROM and Adobe Acrobat installed on your computer. If you do not have Adobe Acrobat on your computer, you can download it free by going to www.adobe.com, clicking on the icon labeled "Get Adobe Reader," and following the instructions to download and install the program. The CDs will not play on a Macintosh.

- The CD with **OC** on the label is the Open Captioned version. The other copy of CD 3 has no captions. Use the version that you find works best for you. The content is the same on both.
- Insert the CD label side up in the CD drive of your computer.
- Make sure your computer's speakers are turned on, and the volume level is set properly.
- When you close the CD drive, the CD should start automatically. It may take a moment. If not, you may need to select the CD drive using Windows Explorer.

If you are using a computer that is older or does not have high speed, the video portions of the CD may appear choppy.

A brief introduction will play automatically. After this introduction, review each component of an ADA eligibility determination by selecting sections one at a time from the bar at the bottom of the screen. Selecting a button will enable you to play only that portion of the CD and is designed to help you review one section at a time, without having to repeat the entire CD. After you have selected from between the major topic areas, buttons for each of the sections of that topic area appear on the left side of the screen. When you select a single topic button, that topic will play.

The sections are:

- The ADA and Eligibility
- Principles of Assessment
- Preparation
- Observation and Recording
- Model Forms

The Model Forms tab provides the "Physical Functional Abilities Assessment Form," instructions for the optional Tinetti Balance and Gait Test, and Tinetti Scoring forms in a Word

format. This will allow you to print the forms and to customize them for your own transit system.

Other buttons on the CD function as follows:

- The right facing arrow starts the CD
- The vertical parallel bars pause the CD
- The X stops the CD
- There is a volume adjustment bar on the far right side
- The exit button closes the CD